



Association of Measurements

*Relationship of Arkansas Early Childhood Education (AECE)
Benchmarks to Other Measurements*

Early Care and Education Projects
University of Arkansas, Fayetteville

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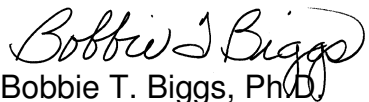
PREFACE

This revised publication of the *Association of Measurements [AOM] or Relationship of the Arkansas Early Childhood Education (AECE) Benchmarks to Other Measurements*, is a collection of alignments, continuums, correlations and connections. These documents show the relationships among the *AECE Benchmarks* and other educational standards and measurements. This publication is provided as an aid for those early childhood educators who are using the various standards and measurements contained within.

This publication consists of relationship documents which include: *Head Start Child Development and Early Learning Framework*, *Kindergarten Readiness Indicators*, *Common Core State Standards for English Language Arts Kindergarten Level*, *Common Core State Standards for Mathematics Kindergarten Level*, *Work Sampling System Developmental Guidelines for Preschool 4*, and *Arkansas Framework for Infant and Toddler Care*. In the previous publication of the AOM, the relationship between the *AECE Benchmarks* and *The Creative Curriculum for Preschool®* was included. You can now find that relationship for this document on the Teaching Strategies® website.

Each of the above documents has a close relationship with the benchmarks in the *AECE Framework Handbook for Three and Four Year Old Children*. Benchmarks “are a level of performance that can be supported through observations, descriptions and documentation of a child’s performance or behavior, and by samples of a child’s work” (*AECE Framework Handbook for Three and Four Year Old Children*, 2004, p. 4). Some of the documents may only be of interest to particular early childhood educators. Head Start teachers may find the alignment of the benchmarks in the *Arkansas Early Childhood Education Framework Handbook* with domain elements in the *Head Start Child Development and Early Learning Framework* especially helpful. All preschool teachers will be interested in the continuum of the Common Core State Standards with the *Arkansas Early Childhood Education Handbook*.

These alignments, continuums, correlations and connections are helpful tools for the early childhood educator who wants a more in-depth look at the *AECE Benchmarks* and their association with and/or relevancy to other standards and measurements. It is the intent of this publication to provide additional information which will assist early childhood professionals in meeting benchmark goals for the children of Arkansas.



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Association of Measurements [AOM] Table

RELATIONSHIP OF BENCHMARKS FROM THE ARKANSAS EARLY CHILDHOOD EDUCATION (AECE) FRAMEWORK HANDBOOK FOR THREE AND FOUR YEAR OLD CHILDREN TO OTHER MEASUREMENTS

| | | |
|--|--------------------|--|
| AECE Framework Handbook For Three and Four Year Old Children | <i>Alignment</i> | Head Start Child Development and Early Learning Framework |
| AECE Framework Handbook For Three and Four Year Old Children | <i>Connection</i> | Kindergarten Readiness Indicators |
| AECE Framework Handbook For Three and Four Year Old Children | <i>Continuum</i> | Common Core State Standards for English Language Arts (Kindergarten Level) |
| Common Core State Standards for English Language Arts (Kindergarten Level) | | AECE Framework Handbook For Three and Four Year Old Children |
| AECE Framework Handbook For Three and Four Year Old Children | <i>Continuum</i> | Common Core State Standards for Mathematics (Kindergarten Level) |
| Common Core State Standards for Mathematics (Kindergarten Level) | | AECE Framework Handbook For Three and Four Year Old Children |
| AECE Framework Handbook For Three and Four Year Old Children | <i>Correlation</i> | Work Sampling System Developmental Guidelines for Preschool 4 |
| Arkansas Framework for Infant and Toddler Care | <i>Continuum</i> | AECE Framework Handbook For Three and Four Year Old Children |

Alignment of the Head Start Child Development and Early Learning Framework with the Arkansas Early Childhood Education Framework Handbook for Three and Four Year Old Children

The Administration for Children and Families, Office of Head Start revised the Head Start Child Outcomes Framework in December 2010. The Framework was renamed the Head Start Child Development and Early Learning Framework: Promoting Positive Outcomes in Early Childhood Programs Serving Children 3-5 Years Old. The changes to the revised framework were designed to provide clarity to the domains and domain elements in the original framework. The changes which have occurred since 2000, when the original framework was published, in the early childhood field prompted the changes (U.S. Department of Health and Human Services, Administration for Children and Families, Office of Head Start, 2010) .

The changes reflected in the Head Start Child Development and Early Learning Framework provided the impetus for changes to the benchmarks in the *Arkansas Early Childhood Education Framework Handbook for Three and Four Year Old Children*. The following is a table that connects the Head Start domain elements and domain examples with the AECE Benchmarks.

| Head Start Domain Element | Head Start Examples | AECE Benchmarks | |
|--|--|-----------------|--|
| Head Start Domain – Physical Development and Health | | | |
| Physical Health Status The maintenance of healthy and age appropriate physical well-being. | Possesses good overall health, including oral, visual, and auditory health, and is free from communicable or preventable diseases | 4.2 | Demonstrates health and personal care habits |
| | Participates in prevention and management of chronic health conditions and avoids toxins, such as lead. | 4.2 | Demonstrates health and personal care habits |
| | Maintains physical growth within the Centers for Disease Control and Prevention (CDC) recommended ranges for weight by height by age | 4.2 | Demonstrates health and personal care habits |
| | Gets sufficient rest and exercise to support healthy development. | 4.2 | Demonstrates health and personal care habits |
| Health Knowledge & Practice The understanding of healthy and safe habits and practicing healthy habits. | Completes personal care tasks, such as dressing, brushing teeth, toileting, and washing hands independently from adults | 4.2 | Demonstrates health and personal care habits |
| | Communicates an understanding of the importance of health and safety routines and rules | 1.23 | Shares, takes turns |
| | | 3.36 | Shows awareness of safe behavior |
| | | 4.5 | Shows awareness that some foods are better for your body than others |
| | Follows basic health and safety rules and responds appropriately to harmful or unsafe situations. | 1.23 | Shares, takes turns |
| | | 3.36 | Shows awareness of safe behavior |
| | | 4.5 | Shows awareness that some foods are better for your body than others |
| | Distinguishes food on a continuum from most healthy to less healthy. | 4.4 4.5 | Recognized different types of food Shows awareness that some foods are better for your body than others |
| | Eats a variety of nutritious foods. | 4.3 | Tries new foods before deciding whether he/she likes them |

| Head Start Domain Element | Head Start Examples | AECE Benchmarks | |
|--|--|-----------------|---|
| <i>Health Knowledge & Practice, con't...</i> | Participates in structured and unstructured physical activities. | 4.9 | Freely participates in gross motor activities |
| | Recognizes the importance of doctor and dentist visits. | 4.2 | Demonstrates health and personal care habits |
| | Cooperates during doctor and dentist visits and health and developmental screenings. | 1.10 | Trust adults for help and comfort |
| Gross Motor Skills The control of large muscles for movement, navigation, and balance. | Develops motor control and balance for a range of physical activities, such as walking, propelling a wheelchair or mobility device, skipping, running, climbing, and hopping. | 4.11 | Runs, jumps, hops, and skips |
| | | 4.12 | Shows balance and coordination |
| | Develops motor coordination and skill in using objects for a range of physical activities, such as pulling, throwing, catching, kicking, bouncing or hitting balls, and riding a tricycle. | 3.41 | Independently applies technology and tools to address a variety of tasks and problems |
| | | 4.9 | Freely participates in gross motor activities |
| | | 4.10 | Throws, kicks, bounces, and catches |
| | | 4.13 | Climbs up and down equipment |
| | Understands movement concepts, such as control of the body, how the body moves (such as an awareness of space and directionality), and that the body can move independently or in coordination with other objects. | 4.12 | Shows balance and coordination |
| Fine Motor Skills The control of small muscles for such purposes as using utensils, self-care, building, and exploring. | Develops hand strength and dexterity | 4.6 | Coordinates eye and hand movements to complete tasks |
| | Develops eye-hand coordination to use everyday tools, such as pitchers for pouring or utensils for eating. | 3.41 | Independently applies technology and tools to address a variety of tasks and problems |
| | | 4.6 | Coordinates eye and hand movements to complete tasks |
| | | 4.7 | Uses small muscles for self-help skills |
| | Manipulates a range of objects, such as blocks or books. | 4.6 | Coordinates eye and hand movements to complete tasks |
| | Manipulates writing, drawing, and art tools. | 3.41 | Independently applies technology and tools to address a variety of tasks and problems |
| | | 4.8 | Uses writing and drawing tools with control and intention |

| Head Start Domain Element | Head Start Examples | AECE Benchmarks |
|---|---|--|
| Head Start Domain – Social and Emotional Development | | |
| Social Relationships The healthy relationships and interactions with adults and peers. | Communicates with familiar adults and accepts or requests guidance. | 1.10 Trust adults for help and comfort 1.28 Seeks support from others when needs assistance |
| | Cooperates with others. | 1.19 Works cooperatively with others 1.22 Shares, takes turns 3.44 Demonstrates the safe and cooperative use of technology and tools |
| | Develops friendships with peers. | 3.35 Functions as a member of the classroom community |
| | Establishes secure relationships with adults. | 1.10 Trust adults for help and comfort |
| | Uses socially appropriate behavior with peers and adults, such as helping, sharing, and taking turns. | 1.17 Stands up for rights 1.18 Respects the rights of others 1.19 Works cooperatively with others 1.22 Shares, takes turns 1.33 Delays gratification 3.44 Demonstrates the safe and cooperative use of technology and tools |
| | Resolves conflict with peers alone and/or with adult intervention as appropriate. | 1.19 Works cooperatively with others 1.20 Uses compromise and discussion to resolve conflicts 1.22 Shares, takes turns 1.28 Seeks support from others when needs assistance |
| | Recognizes and labels others' emotions. | 1.27 Identifies and understands others' emotions and intentions |
| | Expresses empathy and sympathy to peers. | 1.16 Helps others in need 1.24 Expresses care and concern for others 1.27 Identifies and understands others' emotions and intentions |
| | Recognizes how actions affect others and accepts consequences of one's actions. | 1.24 Expresses care and concern for others 1.27 Identifies and understands others' emotions and intentions 1.31 Accepts consequences 3.23 Show awareness of cause-effect relationships |

| Head Start Domain Element | Head Start Examples | AECE Benchmarks | |
|--|---|-----------------|--|
| Self-Concept & Self-Efficacy The perception that one is capable of successfully making decisions, accomplishing tasks, and meeting goals. | Identifies personal characteristics, preferences, thoughts, and feelings. | 1.1 | Demonstrates ability to make choices |
| | | 1.6 | Demonstrates confidence in growing abilities |
| | | 1.25 | Identifies one's own feelings |
| | | 1.26 | Expresses thoughts and feelings in words |
| | Demonstrates age-appropriate independence in a range of activities, routines, and tasks. | 1.2 | Demonstrates independence in personal care |
| | | 1.3 | Demonstrates ability to play independently |
| | Shows confidence in a range of abilities and in the capacity to accomplish tasks and take on new tasks. | 1.6 | Demonstrates confidence in growing abilities |
| | Demonstrates age-appropriate independence in decision making regarding activities and materials. | 1.8 | Uses planning in approaching a task or activity |
| Self-Regulation The ability to recognize and regulate emotions, attention, impulses, and behavior. | Recognizes and labels emotions. | 1.17 | Stands up for rights |
| | | 1.18 | Respects the rights of others |
| | | 1.25 | Identifies one's own feelings |
| | | 1.27 | Identifies and understands others' emotions and intentions |
| | Handles impulses and behavior with minimal direction from adults. | 1.29 | Expresses strong emotions constructively |
| | | 1.33 | Delays gratification |
| | Follows simple rules, routines, and directions. | 1.13 | Participates in routine activities easily |
| | | 1.23 | Follows rules |
| | | 1.30 | Pays attention |
| | Shifts attention between tasks and moves through transitions with minimal direction from adults. | 1.8 | Uses planning in approaching a task or activity |
| | | 1.30 | Pays attention |
| Emotional & Behavioral Health A healthy range of emotional expression and learning positive alternatives to aggressive or isolating behaviors. | Expresses a range of emotions appropriately, such as excitement, happiness, sadness, and fear. | 1.26 | Expresses thoughts and feelings in words |
| | | 1.29 | Expresses strong emotions constructively |
| | | 1.31 | Accepts consequences |
| | Refrains from disruptive, aggressive, angry, or defiant behaviors. | 1.29 | Expresses strong emotions constructively |
| | | 1.31 | Accepts consequences |
| | Adapts to new environments with appropriate emotions and behaviors. | 1.29 | Expresses strong emotions constructively |

| Head Start Domain Element | Head Start Examples | AECE Benchmarks |
|---|--|---|
| Head Start Domain – Approaches to Learning | | |
| Initiative & Curiosity An interest in varied topics and activities, desire to learn, creativeness, and independence in learning. | Demonstrates flexibility, imagination, and inventiveness in approaching tasks and activities. | 2.1 Shows creativity and imagination in play with materials and props |
| | Demonstrates eagerness to learn about and discuss a range of topics, ideas, and tasks. | 1.1 Demonstrates ability to make choices 1.4 Shows curiosity and desire to learn 1.5 Enjoys experimenting and problem-solving with ideas as well as with concrete materials 1.7 Demonstrates willingness to try new things |
| | Asks questions and seeks new information. | 1.4 Shows curiosity and desire to learn 1.28 Seeks support from others when needs assistance |
| | | |
| Persistence & Attentiveness The ability to begin and finish activities with persistence and attention. | Maintains interest in a project or activity until completed. | 1.5 Enjoys experimenting and problem-solving with ideas as well as with concrete materials 1.30 Pays attention 1.32 Practices new skill |
| | Sets goals and develops and follows through on plans. | 1.8 Uses planning in approaching a task or activity |
| | Resists distractions, maintains attention, and continues the task at hand through frustration or challenges. | 1.9 Shows persistence in approaching tasks 1.30 Pays attention |
| | | |
| Cooperation An interest and engagement in group experiences | Plans, initiates, and completes learning activities with peers. | 1.8 Uses planning in approaching a task or activity 1.30 Pays attention |
| | Joins in cooperative play with others and invites others to play. | 1.19 Works cooperatively with others 1.24 Expresses care and concerns for others 1.27 Identifies and understands others' emotions and intentions |
| | Models or teaches peers. | 1.16 Helps others in need 1.24 Expresses care and concerns for others |
| | Helps, shares, and cooperates in a group. | 1.16 Helps others in need 1.18 Respects the rights of others 1.22 Shares, takes turns 1.27 Identifies and understands others' emotions and intentions 3.35 Functions as a member of the classroom community 3.44 Demonstrates the safe and cooperative use of technology and tools |

| Head Start Domain Element | Head Start Examples | AECE Benchmarks |
|--|---|--|
| Head Start Domain - Logic & Reasoning | | |
| Reasoning & Problem Solving The ability to recognize, understand, and analyze a problem and draw on knowledge or experience to seek solutions to a problem. | Seeks multiple solutions to a question, task, or problem. | 3.24 Finds more than one solution to a problem |
| | Recognizes cause and effect relationships. | 1.5 Enjoys experimenting and problem-solving with ideas as well as with concrete materials 3.23 Shows awareness of cause-effect relationships |
| | Classifies, compares, and contrasts objects, events, and experiences. | 3.11 Classifies objects conceptually (things that go together) |
| | Uses past knowledge to build new knowledge. | 3.25 Applies information or experience to a new context (scientific process: applying) |
| Symbolic Representation The use of symbols or objects to represent something else. | Represents people, places, or things through drawings, movement, and three-dimensional objects. | 2.10 Explores and manipulates art media |
| | Engages in pretend play and acts out roles. | 2.3 Assumes various roles in dramatic play situations |
| | Recognizes the difference between pretend or fantasy situations and reality | 2.1 Shows creativity and imagination in play with materials and props |
| Head Start Domain - Language Development | | |
| Receptive Language The ability to comprehend or understand language. | Attends to language during conversations, songs, stories, or other learning experiences. | 5.7 Engages in two-way conversation with children and adults 5.8 Participates in group discussion 5.10 Follows directions in sequence |
| | Comprehends increasingly complex and varied vocabulary. | 3.45 Communicates about technology and tools using developmentally appropriate and accurate terminology 5.3 Expands vocabulary |
| | Comprehends different forms of language, such as questions or exclamations. | 5.2 Uses effective oral communication skills: speaking in complete sentences, speaking with appropriate grammar |
| | Comprehends different grammatical structures or rules for using language. | 5.2 Uses effective oral communication skills: speaking in complete sentences, speaking with appropriate grammar |

| Head Start Domain Element | Head Start Examples | AECE Benchmarks | |
|--|--|-----------------|---|
| Expressive Language The ability to use language. | Engages in communication and conversation with others. | 5.7 | Engages in two-way conversation with children and adults |
| | Uses language to express ideas and needs. | 5.6 | Uses words to communicate ideas |
| | Uses increasingly complex and varied vocabulary. | 3.45 | Communicates about technology and tools using developmentally appropriate and accurate terminology |
| | | 5.3 | Expands vocabulary |
| | Uses different forms of language. | 5.2 | Uses effective oral communication skills: speaking in complete sentences, speaking with appropriate grammar |
| | Uses different grammatical structures for a variety of purposes. | 5.2 | Uses effective oral communication skills: speaking in complete sentences, speaking with appropriate grammar |
| | Engages in storytelling. | 3.2 | Uses picture cues to tell a story |
| | | 5.11 | Tells a story |
| | Engages in conversations with peers and adults. | 5.7 | Engages in two-way conversation with children and adults |
| Head Start Domain – Literacy Knowledge & Skills | | | |
| Book Appreciation and Knowledge The interest in books and their characteristics, and the ability to understand and get meaning from stories and information from books and other texts. | Shows interest in shared reading experiences and looking at books independently. | 3.1 | Shows enjoyment of books and stories and discussion of them |
| | Recognizes how books are read, such as front-to-back and one page at a time, and recognizes basic characteristics, such as title, author, and illustrator. | 3.3 | Demonstrates knowledge of how to use a book |
| | Asks and answers questions and makes comments about print materials. | 3.1 | Shows enjoyment of books and stories and discussion of them |
| | Demonstrates interest in different kinds of literature, such as fiction and non-fiction books and poetry, on a range of topics. | 3.1 | Shows enjoyment of books and stories and discussion of them |
| | Retells stories or information from books through conversation, artistic works, creative movement, or drama. | 3.2 | Uses picture cues to tell a story |

| Head Start Domain Element | Head Start Examples | AECE Benchmarks | |
|--|--|-------------------|---|
| Phonological Awareness An awareness that language can be broken into words, syllables, and smaller pieces of sound. | Identifies and discriminates between words in language. | 5.1 | Demonstrates phonological awareness (hearing and recognizing the sounds of language) |
| | Identifies and discriminates between separate syllables in words. | 5.1 | Demonstrates phonological awareness (hearing and recognizing the sounds of language) |
| | Identifies and discriminates between sounds and phonemes in language, such as attention to beginning and ending sounds of words and recognition that different words begin or end with the same sound. | 5.1 | Demonstrates phonological awareness (hearing and recognizing the sounds of language) |
| Alphabet Knowledge The names and sounds associated with letters. | Recognizes that the letters of the alphabet are a special category of visual graphics that can be individually named. | 3.4 3.6 3.9 | Demonstrates visual discrimination and visual memory skills Demonstrates an interest in using writing for a purpose Identifies some letters and makes some letter-sound matches |
| | Recognizes that letters of the alphabet have distinct sound(s) associated with them. | 3.9 | Identifies some letters and makes some letter-sound matches |
| | Attends to the beginning letters and sounds in familiar words. | 3.7 | Identifies letters and signs in the environment |
| | Identifies letters and associates correct sounds with letters. | 3.9 | Identifies some letters and makes some letter-sound matches |
| Print Concepts & Conventions The concepts about print and early decoding (identifying letter-sound relationships). | Recognizes print in everyday life, such as numbers, letters, one's name, words, and familiar logos and signs. | 3.4 3.5 3.7 | Demonstrates visual discrimination and visual memory skills Understands that print conveys a message Identifies letters and signs in the environment |
| | Understands that print conveys meaning. | 3.5 3.7 | Understands that print conveys a message Identifies letters and signs in the environment |
| | Understands conventions, such as print moves from left to right and top to bottom of a page. | 3.3 3.5 | Demonstrates knowledge of how to use a book Understands that print conveys a message |
| | Recognizes words as a unit of print and understands that letters are grouped to form words. | 3.9 | Identifies some letters and makes some letter-sound matches |
| | Recognizes the association between spoken or signed and written words. | 3.9 | Identifies some letters and makes some letter-sound matches |

| Head Start Domain Element | Head Start Examples | AECE Benchmarks | |
|---|---|-----------------|---|
| Early Writing The familiarity with writing implements, conventions, and emerging skills to communicate through written representations, symbols, and letters. | Experiments with writing tools and materials. | 3.6 | Demonstrates an interest in using writing for a purpose |
| | | 3.41 | Independently applies technology and tools to address a variety of tasks and problems |
| | | 4.8 | Uses writing and drawing tools with control and intention |
| | Recognizes that writing is a way of communicating for a variety of purposes, such as giving information, sharing stories, or giving an opinion. | 3.5 | Understands that print conveys a message |
| | | 3.6 | Demonstrates an interest in using writing for a purpose |
| | Uses scribbles, shapes, pictures, and letters to represent objects, stories, experiences, or ideas. | 3.6 | Demonstrates an interest in using writing for a purpose |
| | | 3.8 | Uses known letters or approximation of letters to represent written language |
| | Copies, traces, or independently writes letters or words. | 3.6 | Demonstrates an interest in using writing for a purpose |
| Head Start Domain – Mathematics Knowledge & Skills | | | |
| Number Concepts & Quantities The understanding that numbers represent quantities and have ordinal properties (number words represent a rank order, particular size, or position in a list). | Recognizes numbers and quantities in the everyday environment. | 3.14 | Demonstrates the ability to order and sequence |
| | | 3.15 | Demonstrates an understanding of number (how many) and numeral (3 is a numeral) relationship (numeration) |
| | | 3.16 | Demonstrates an understanding of addition and subtraction, using manipulatives |
| | | 3.26 | Discusses natural events in the environment |
| | | 3.27 | Uses numbers in daily activities |
| | Recites numbers in the correct order and understands that numbers come “before” or “after” one another. | 3.15 | Demonstrates an understanding of number (how many) and numeral (3 is a numeral) relationship (numeration) |
| | | 3.27 | Uses numbers in daily activities |
| | Associates quantities and the names of numbers with written numerals. | 3.15 | Demonstrates an understanding of number (how many) and numeral (3 is a numeral) relationship (numeration) |
| | | 3.27 | Uses numbers in daily activities |
| | Uses one-to-one counting and subitizing (identifying the number of objects without counting) to determine quantity. | 3.13 | Demonstrates one-to-one correspondence |
| | | 3.27 | Uses numbers in daily activities |
| | Uses the number name of the last object counted to represent the number of objects in the set. | 3.15 | Demonstrates an understanding of number (how many) and numeral (3 is a numeral) relationship (numeration) |
| | | 3.27 | Uses numbers in daily activities |

| Head Start Domain Element | Head Start Examples | AECE Benchmarks |
|---|--|--|
| Number Relationships & Operations The use of numbers to describe relationships and solve problems. | Uses a range of strategies, such as counting, subitizing, or matching, to compare quantity in two sets of objects and describes the comparison with terms, such as more, less, greater than, fewer, or equal to. | 3.16 Demonstrates an understanding of addition and subtraction, using manipulatives |
| | Recognizes that numbers (or sets of objects) can be combined or separated to make another number through the grouping of objects. | 3.16 Demonstrates an understanding of addition and subtraction, using manipulatives 3.27 Uses numbers in daily activities |
| | Identifies the new number created when numbers are combined or separated. | 3.16 Demonstrates an understanding of addition and subtraction, using manipulatives 3.27 Uses numbers in daily activities |
| Geometry & Spatial Sense The understanding of shapes, their properties, and how objects are related to one another. | Recognizes and names common shapes, their parts, and attributes. | 3.10 Classifies objects by physical features such as shape or color 3.28 Describes the characteristics of both two-dimensional shapes and geometric solids |
| | Combines and separates shapes to make other shapes. | 3.17 Shows understanding of different relationships of objects in space (spatial relations) 3.29 Manipulates and combines two-dimensional shapes |
| | Compares objects in size and shape. | 3.10 Classifies objects by physical features such as shape or color 3.17 Shows understanding of different relationships of objects in space (spatial relations) |
| | Understands directionality, order, and position of objects, such as up, down, in front, behind. | 3.17 Shows understanding of different relationships of objects in space (spatial relations) |
| Patterns The recognition of patterns, sequencing, and critical thinking skills necessary to predict and classify objects in a pattern. | Sorts, classifies, and serializes (puts in a pattern) objects using attributes, such as color, shape, or size. | 3.10 Classifies objects by physical features such as shape or color 3.14 Demonstrates the ability to order and sequence 3.22 Makes comparisons (scientific process: comparing) |
| | Recognizes, duplicates, and extends simple patterns. | 3.12 Recognizes patterns and can repeat them (patterning) |
| | Creates patterns through the repetition of a unit. | 3.12 Recognizes patterns and can repeat them (patterning) |
| Measurement & Comparison The understanding of attributes and relative properties of objects as related to size, capacity, and area. | Compares objects using attributes of length, weight and size (bigger, longer, taller, heavier). | 3.22 Makes comparisons (scientific process: comparing) 3.30 Participates in exploratory measurement activities |
| | Orders objects by size or length. | 3.10 Classifies objects by physical features such as shape or color 3.30 Participates in exploratory measurement activities |
| | Uses nonstandard and standard techniques and tools to measure and compare. | 3.22 Makes comparisons (scientific process: comparing) 3.30 Participates in exploratory measurement activities |

| Head Start Domain Element | Head Start Examples | AECE Benchmarks |
|---|---|---|
| Head Start Domain – Science Knowledge & Skills | | |
| Scientific Skills & Method The skills to observe and collect information and use it to ask questions, predict, explain, and draw conclusions. | Uses senses and tools, including technology, to gather information, investigate materials, and observe processes and relationships. | 3.19 Shows interest in exploring the environment 3.20 Uses senses to learn about the characteristics of the environment and to collect data (scientific process: observing) 3.22 Makes comparisons (scientific process: comparing) 3.26 Discusses natural events in the environment 3.41 Independently applies technology and tools to address a variety of tasks and problems 3.43 Identifies purpose of common technologies and tools |
| | Observes and discusses common properties, differences, and comparisons among objects. | 3.20 Uses senses to learn about the characteristics of the environment and to collect data (scientific process: observing) 3.21 Uses words to describe the characteristics of objects (scientific process: communicating) 3.22 Makes comparisons (scientific process: comparing) 3.26 Discusses natural events in the environment 3.43 Identifies purpose of common technologies and tools 3.45 Communicates about technology and tools using developmentally appropriate and accurate terminology |
| | Participates in simple investigations to form hypotheses, gather observations, draw conclusions, and form generalizations. | 3.22 Makes comparisons (scientific process: comparing) 3.23 Shows awareness of cause-effect relationships 3.25 Applies information or experience to a new context (scientific process: applying) |
| | Collects, describes, and records information through discussions, drawings, maps, and charts. | 3.20 Uses senses to learn about the characteristics of the environment and to collect data (scientific process: observing) 3.21 Uses words to describe the characteristics of objects (scientific process: communicating) 3.41 Independently applies technology and tools to address a variety of tasks and problems 3.43 Identifies purpose of common technologies and tools 3.45 Communicates about technology and tools using developmentally appropriate and accurate terminology |
| | Describes and discusses predictions, explanations, and generalizations based on past experience. | 3.21 Uses words to describe the characteristics of objects (scientific process: communicating) 3.22 Makes comparisons (scientific process: comparing) 3.23 Shows awareness of cause-effect relationships 3.25 Applies information or experience to a new context (scientific process: applying) 3.44 Demonstrates the safe and cooperative use of technology and tools |

| Head Start Domain Element | Head Start Examples | AECE Benchmarks | |
|--|--|-----------------|---|
| <p>Conceptual Knowledge of the Natural & Physical World</p> <p>The acquisition of concepts and facts related to the natural and physical world and the understanding of naturally-occurring relationships.</p> | Observes, describes, and discusses living things and natural processes. | 3.20 | Uses senses to learn about the characteristics of the environment and to collect data (scientific process: observing) |
| | Observes, describes, and discusses properties of materials and transformation of substances. | 3.21 | Uses words to describe the characteristics of objects (scientific process: communicating) |
| | | 3.26 | Discusses natural events in the environment |
| | | 3.45 | Communicates about technology and tools using developmentally appropriate and accurate terminology |
| | | 3.18 | Shows an awareness of time concepts |
| | | 3.19 | Shows interest in exploring the environment |
| | | 3.20 | Uses senses to learn about the characteristics of the environment and to collect data (scientific process: observing) |
| | | 3.23 | Shows awareness of cause-effect relationships |
| | | 3.45 | Communicates about technology and tools using developmentally appropriate and accurate terminology |
| | | 4.1 | Identifies body parts and understands their functions |
| Head Start Domain – Creative Arts Expression | | | |
| <p>Music</p> <p>The use of voice and instruments to create sounds.</p> | Participates in music activities, such as listening, singing, or performing. | 2.4 | Participates freely in music activities |
| | Experiments with musical instruments. | 2.5 | Enjoys singing games, dramatizing songs and moving to music |
| | | 2.8 | Identifies the source of a variety of sounds |
| | | 2.7 | Experiments with a variety of musical instruments and sound sources |
| <p>Creative Movement & Dance</p> <p>The use of the body to move to music and express oneself.</p> | Expresses what is felt and heard in various musical tempos and styles. | 2.5 | Enjoys singing games, dramatizing songs and moving to music |
| | Moves to different patterns of beat and rhythm in music. | 2.6 | Expresses through movement what is felt and heard in various musical tempos and styles |
| | Uses creative movement to express concepts, ideas, or feelings. | 2.9 | Moves in time to the beat |
| <p>Art</p> <p>The use of a range of media and materials to create drawings, pictures, or other objects.</p> | Uses different materials and techniques to make art creations. | 2.6 | Expresses through movement what is felt and heard in various musical tempos and styles |
| | Creates artistic works that reflect thoughts, feelings, experiences, or knowledge. | 2.10 | Explores and manipulates art media |
| | Discusses one's own artistic creations and those of others. | 3.41 | Independently applies technology and tools to address a variety of tasks and problems |
| | | 2.11 | Creates drawings and paintings that gradually become more detailed and realistic |
| | | 2.12 | Preplans art project and then works with care |
| | | 2.13 | Recognizes and responds to beauty in the environment |

| Head Start Domain Element | Head Start Examples | AECE Benchmarks | |
|--|---|----------------------|---|
| Drama The portrayal of events, characters, or stories through acting and using props and language. | Uses dialogue, actions, and objects to tell a story or express thoughts and feelings about one's self or a character. | 2.2 | Participates in dramatic play themes that become more involved and complex |
| | Uses creativity and imagination to manipulate materials and assume roles in dramatic play situations. | 2.1 2.3 | Shows creativity and imagination in play with materials and props Assumes various roles in dramatic play situations |
| Head Start Domain – Social Studies Knowledge & Skills | | | |
| Self, Family & Community The understanding of one's relationship to the family and community, roles in the family and community, and respect for diversity. | Identifies personal and family structure. | 3.31 3.32 | Identifies self as a boy or girl Identifies self as a member of a specific family and cultural group |
| | Understands similarities and respects differences among people. | 1.15 | Understands and respects differences |
| | Recognizes a variety of jobs and the work associated with them. | 3.34 | Shows awareness of the roles people play in society |
| | Understands the reasons for rules in the home and classroom and for laws in the community. | 1.23 3.34 | Follows rules Shows awareness of the roles people play in society |
| | Describes or draws aspects of the geography of the classroom, home, and community. | 3.35 | Functions as a member of the classroom community |
| People & the Environment The understanding of the relationship between people and the environment in which they live. | Recognizes aspects of the environment, such as roads, buildings, trees, gardens, bodies of water, or land formations. | 3.20 3.26 3.42 | Uses senses to learn about the characteristics of the environment and to collect data (scientific process: observing) Discusses natural events in the environment Shows awareness of technology and tools and their impact on how people live |
| | Recognizes that people share the environment with other people, animals, and plants. | 3.37 3.42 | Cares for the environment Shows awareness of technology and tools and their impact on how people live |
| | Understands that people can take care of the environment through activities, such as recycling. | 3.37 3.42 | Cares for the environment Shows awareness of technology and tools and their impact on how people live |
| | | | |
| | | | |
| History & Events The understanding that events happened in the past and how these events relate to one's self, family, and community. | Differentiates between past, present, and future. | 3.34 3.42 | Shows awareness of the roles people play in society Shows awareness of technology and tools and their impact on how people live |
| | Recognizes events that happened in the past, such as family or personal history. | 3.33 3.42 | Shows pride in heritage and background Shows awareness of technology and tools and their impact on how people live |
| | Understands how people live and what they do changes over time. | 3.28 3.34 3.42 | Shows pride in heritage and background Shows awareness of the roles people play in society Shows awareness of technology and tools and their impact on how people live |
| | | | |
| | | | |

| Head Start Domain Element | Head Start Examples | AECE Benchmarks |
|--|---|---|
| Head Start Domain – English Language Development | | |
| Receptive English Language Skills The ability to comprehend or understand the English language. | Participates with movement and gestures while other children and the teachers dance and sing in English. | 2.4 Participates freely in music activities |
| | Acknowledges or responds nonverbally to common words or phrases, such as “hello” “good bye” “snack time” “bathroom”, when accompanied by adult gestures. | *4.1.C Expresses needs and thoughts without using words (non-verbal communication) |
| | Points to body parts when asked, “Where is your nose, hand, leg...?” | *4.3.13 Responds to verbal and non-verbal language |
| | Comprehends and responds to increasingly complex and varied English vocabulary, such as “Which stick is the longest?” “Why do you think the caterpillar is hungry?” | 5.3 Expands vocabulary 5.6 Uses words to communicate ideas 5.9 Uses language to problem solve |
| | Follows multi-step directions in English with minimal cues or assistance. | 5.10 Follows directions in sequence |
| Expressive English Language Skills The ability to speak or use English. | Repeats word or phrase to self, such as “bus” while group sings the “Wheels on the Bus” or “brush teeth” after lunch. | *4.4.C Communicates through language |
| | Requests items in English, such as “car,” “milk,” “book,” “ball.” | *4.4.C Communicates through language |
| | Uses one or two English words, sometimes joined to represent a bigger idea, such as “throwball.” | *4.4.C Communicates through language |
| | Uses increasingly complex and varied English vocabulary. | *4.4.C Communicates through language |
| | Constructs sentences, such as “The apple is round.” or “I see a fire truck with lights on.” | *4.4.C Communicates through language |
| Engagement in English Literacy Activities Understanding and responding to books, storytelling, and songs presented in English. | Demonstrates eagerness to participate in songs, rhymes and stories in English. | 2.5 Enjoys singing games, dramatizing songs and moving o music 5.5 Participates in songs, fingerplays, rhyming activities, and games |
| | Points to pictures and says the word in English, such as “frog,” “baby,” “run.” | 5.4 Recognizes and identifies by name most common objects and pictures |
| | Learns part of a song or poem in English and repeats it. | 5.5 Participates in songs, fingerplays, rhyming activities, and games |
| | Talks with peers or adults about a story read in English. | 5.8 Participates in group discussion |
| | Tells a story in English with a beginning, middle, and end from a book or about a personal experience. | 3.2 Uses picture cues to tell a story |

*From the Arkansas Framework for Infant and Toddler Care which addresses earlier more developmental student expectations. Most students will move quickly through these benchmarks.

U.S. Department of Health and Human Services, Administration for Children and Families, Office of Head Start (2010).

Connection of the Kindergarten Readiness Indicators with the Arkansas Early Childhood Education Handbook for Three and Four Year Old Children

The *Kindergarten Readiness Indicators* were developed by the Arkansas Department of Education to help identify skills that will prepare children for kindergarten. “While mastery of any or all of the skills identified is not required for admission to kindergarten, these indicators will help children enter kindergarten with confidence” (Arkansas Department of Education, 2004).

The Division of Child Care and Early Childhood Education has published *Getting Ready for Kindergarten: A Calendar of Family Activities*. The calendar is full of activities to help parents and their children focus on specific kindergarten readiness indicators each month. The calendar has restated the *Kindergarten Readiness Indicators* in family-friendly language.

Following is a table that connects the *Kindergarten Readiness Indicators* to the *Arkansas Early Childhood Education Benchmarks*.

Explanation: In the left column, is the indicator from the Arkansas Department of Education. Below it in *italics*, is the same indicator written in the family-friendly language from the calendar. In the left column, the indicator is connected with the *Arkansas Early Childhood Education Benchmarks* in the right column.

| KINDERGARTEN READINESS INDICATORS | ARKANSAS EARLY CHILDHOOD EDUCATION BENCHMARKS |
|---|--|
| <i>Expressiveness and Language Comprehension</i> | |
| 1. Uses effective oral communication skills and speaks in complete sentences <i>*Speaks in complete sentences</i> | 1.26 Expresses thoughts and feelings in words 1.28 Seeks support from others when needs assistance 1.29 Expresses strong emotions constructively 5.2 Uses effective oral communication skills: speaking in complete sentences, speaking with appropriate grammar |
| 2. Understands and follows directions with at least two steps <i>*Follows directions with at least two steps</i> | 1.23 Follows rules 5.10 Follows directions in sequence |
| 3. Understands vocabulary related to position, direction, size and comparison • like/different • top/bottom • first/last • big/little • up/down <i>*Understands words such as “top” and “bottom” and “big” and “little”</i> | 3.17 Shows understanding of different relationships of objects in space (spatial relations) |
| 4. Makes simple predictions and comments about a story being read <i>*Makes simple predictions and comments about a story being read</i> | 3.1 Shows enjoyment of books and stories and discussion of them |

| KINDERGARTEN READINESS INDICATORS | ARKANSAS EARLY CHILDHOOD EDUCATION BENCHMARKS |
|---|--|
| <i>Approach to Learning and Cognition</i> | |
| 5. Demonstrates visual discrimination skills by matching two like pictures in each of five sets of pictures <i>*Matches two pictures that are alike</i> | 3.4 Demonstrates visual discrimination and visual memory skills |
| 6. Classifies (same/different, alike/not alike) objects by physical features <ul style="list-style-type: none"> • shape • color • size <i>*Looks at groups of objects and says which are the same shape, color or size</i> | 3.10 Classifies objects by physical features such as shape or color 3.28 Describes the characteristics of both two-dimensional shapes and geometric solids |
| 7. Classifies objects conceptually (things that go together) <i>*Tells things that go together; for example a spoon and fork are for eating and a fish and a boat go in the water</i> | 3.11 Classifies objects conceptually (things that go together) |
| 8. Recognizes, replicates or repeats a visual or auditory patterning sequence <i>*Repeats a pattern you start; for example, step, step, jump – step, step, jump</i> | 3.12 Recognizes patterns and can repeat them (patterning) |
| 9. Demonstrates the ability to correctly put in order or sequence up to three (3) pictures <i>*Puts 3 pictures in order; for example 1. Planting flower seeds 2. Flowers growing 3. Picking flowers</i> | 1.30 Pays attention 3.14 Demonstrates the ability to order and sequence |
| 10. Recites/participates/joins in repeating a familiar song/poem/finger play/nursery rhyme <i>*Says or sings familiar songs and nursery rhymes</i> | 5.5 Participates in songs, fingerplays, rhyming activities, and games |
| 11. Retells a simple story after listening to a story with pictures <i>*Retells a simple story such as The Three Little Pigs after listening to it while looking at the pictures in the book</i> | 3.2 Tells a story in sequence, following the pictures in a book 5.11 Tells a story |
| 12. Works simple puzzles (up to 4 pieces) <i>*Works puzzles</i> | 4.6 Coordinates eye and hand movements to complete tasks |
| 13. Identifies/points to 5 colors <i>*Recognizes and names at least 5 colors</i> | 3.10 Classifies objects by physical features such as shape or color |

| KINDERGARTEN READINESS INDICATORS | ARKANSAS EARLY CHILDHOOD EDUCATION BENCHMARKS |
|---|---|
| <i>Phonological Awareness and Print Knowledge</i> | |
| 14. Recognizes name in print when shown word cards <i>*Recognizes his or her own first name in print</i> | 3.5 Understands that print conveys a message |
| 15. Points and/or recognizes letters in name <i>*Recognizes letters in his or her own first name</i> | 3.7 Identifies letters and signs in the environment |
| 16. Attempts to write letters in own name <i>*Begins to write some of the letters in his or her own first name</i> | 3.6 Demonstrates an interest in using writing for a purpose 3.8 Uses known letters or approximation of letters to represent written language |
| 17. Recognizes environmental print or familiar signs in the child's environment <i>*Recognizes words or signs he or she sees often; for example McDonald's, Wal-Mart, the name of the local grocery store where the family shops, or stop signs and exit signs</i> | 3.7 Identifies letters and signs in the environment |
| 18. Demonstrates book awareness <ul style="list-style-type: none"> • Concepts about print <ul style="list-style-type: none"> - left to right - top to bottom • Book handling <ul style="list-style-type: none"> - holding book right side up - beginning/ending <i>*Holds and looks at books correctly; for example holds the book right side up and turns the pages one at a time from front to back</i> | 3.3 Demonstrates knowledge of how to use a book |
| 19. Identifies two words that rhyme/sound the same <i>*Recognizes rhyming words such as cat and hat</i> | 5.1 Demonstrates phonological awareness (hearing and recognizing the sounds of language) |
| 20. Recognizes 10 alphabet names, may include those in own name, by pointing to requested letter <i>*Recognizes and names at least 10 letters of the alphabet</i> | 3.7 Identifies letters or signs in the environment |
| 21. Makes 3 letter/sound matches <i>*Matches a letter with the beginning sound of a word; for example matches the letter "b" with a picture of a banana</i> | 3.9 Identifies some letters and makes some letter-sound matches |
| 22. Uses symbols or drawings to express ideas <i>*Expresses ideas through pictures he or she draws; for example a child draws a picture of 3 family members and says who each one is</i> | 2.11 Creates drawings and paintings that gradually become more detailed and realistic |

| KINDERGARTEN READINESS INDICATORS | ARKANSAS EARLY CHILDHOOD EDUCATION BENCHMARKS |
|---|---|
| <i>Mathematics</i> | |
| 23. Counts number of objects in small group (up to 5 objects) <i>*Counts at least 5 objects such as 3 bananas and 5 forks</i> | 3.14 Demonstrates the ability to order and sequence 3.15 Demonstrates an understanding of number (how many) and numeral (3 is a numeral) relationship (numeration) |
| 24. Demonstrates an understanding of number (how many) and numeral relationship by placing correct number of objects to corresponding 0-5 numeral <i>*See the written numeral "3" and understands this means 3 objects such as 3 bears</i> | 3.15 Demonstrates an understanding of number (how many) and numeral (3 is a numeral) relationship (numeration) |
| 25. Demonstrates an understanding of addition and subtraction using manipulatives up to 5 <i>*Adds and subtracts familiar objects such as cookies</i> | 3.16 Demonstrates an understanding of addition and subtraction using manipulatives |
| 26. Arranges numerals in order 1-5 <i>*Puts written numerals in order from 1 to 5: 1, 2, 3, 4, 5</i> | 3.14 Demonstrates the ability to order and sequence 3.15 Demonstrates an understanding of number (how many) and numeral (3 is a numeral) relationship (numeration) |
| 27. Identifies/points to 3 shapes • circle • square • triangle <i>*Recognizes and names 3 shapes: circle, square and triangle</i> | 3.10 Classifies objects by physical features such as shape or color |
| 28. Counts in sequence 1-10 <i>*Counts from 1 to 10 in correct order</i> | 3.14 Demonstrates the ability to order and sequence 3.15 Demonstrates an understanding of number (how many) and numeral (3 is a numeral) relationship (numeration) |
| 29. Understands concepts of more and less up to 5 objects <i>*Uses the words "more" and "less" correctly</i> | 3.16 Demonstrations an understanding of addition and subtraction using manipulatives |

| KINDERGARTEN READINESS INDICATORS | ARKANSAS EARLY CHILDHOOD EDUCATION BENCHMARKS |
|--|--|
| <i>Social/Emotional</i> | |
| 30. Identifies self as a boy or girl <i>*Tells if he or she is a boy or girl</i> | 3.31 Identifies self as a boy or girl |
| 31. Provides/states first and last name <i>*Tells first and last name</i> | 3.32 Identifies self as a member of a specific family and cultural group |
| 32. Identifies parent's first and last name <i>*Tells first and last name of parent(s)</i> | 3.32 Identifies self as a member of a specific family and cultural group |
| 33. Identifies age <i>*Tells how old he or she is</i> | 3.15 Demonstrates an understanding of number (how many) and numeral (3 is a numeral) relationship (numeration) |
| 34. Demonstrates independence in personal care <i>*Takes care of own needs such as toileting, washing hands and dressing</i> | 1.2 Demonstrates independence in personal care |
| 35. Separates from parents by appearing comfortable and secure without a parent <i>*Adjusts to new situations without parents being there</i> | 1.11 Shows ability to separate from parents |
| <i>Physical Development</i> | |
| 36. Uses writing/drawing tools and scissors with control and intention <i>*Uses pencils, crayons and markers for drawing and writing and cuts with scissors</i> | 4.8 Uses writing and drawing tools with control and intention |
| 37. Reproduces or copies a • — (line) • ○ (circle) • X • + <i>*Draws a line, circle, X and +</i> | 4.8 Uses writing and drawing tools with control and intention |
| 38. Demonstrates gross motor skills (hop, jump, run, catch and bounce ball) <i>*Runs, jumps, hops, throws, catches, and bounces a ball</i> | 4.10 Throws, kicks, bounces, and catches |
| | 4.11 Runs, jumps, hops and skips |

Arkansas Department of Education. (2004). *Kindergarten readiness indicators*. Little Rock, AR: Author.

Brown, D., Wright, B.C., & Courson, D. (2004). *Getting ready for kindergarten: A calendar of family activities*. Little Rock, AR: Division of Child Care and Early Childhood Education

Brown, D., Wright, B.C., & Courson, D. (2004). *Getting children ready for kindergarten: A guide for teachers and caregivers of preschool children*. Little Rock, AR: Division of Child Care and Early Childhood Education

Division of Child Care and Early Childhood Education. (2004). *Arkansas early childhood education framework handbook*. Little Rock, AR: Author.

Continuum of the Arkansas Early Childhood Education Framework Handbook for Three and Four Year Old Children with the Common Core State Standards for English Language Arts Kindergarten Level

Common Core State Standards Initiative is an effort to improve college and career readiness of children across the nation. This was part of a state-led effort to give all students the skills and knowledge they need to succeed. Arkansas has joined the Common Core State Standards (CCSS) Initiative in an effort to improve college and career readiness across the nation. The Arkansas Board of Education voted in July 2010 to adopt the CCSS which is a set of shared learning expectations from state to state in English Language Arts and Mathematics. These standards define the knowledge and skills students should have within their K-12 education careers so that they will graduate high school able to succeed in entry-level, credit-bearing academic college courses and in workforce training programs.

The Common Core State Standards English Language Arts replaced the Arkansas Department of Education Kindergarten English Language Arts Curriculum Framework which was in the previous edition of the AOM. The move to CCSS began in the 2011-12 school year in Arkansas with implementation in Kindergarten through 2nd Grade. Grades 3-8 implement CCSS in 2012-13, Grades 9-12 implement in the 2013-14 school year, and common assessments in 2014-15.

In the left column, the AECE Benchmarks is connected to the appropriate Common Core Standard in the right column.

| AECE Benchmarks | | Common Core State Standards | |
|---|--------------------------------|---|--|
| Benchmark | Strand | Standard | |
| 1.1 Demonstrates ability to make choices | Writing | 6. With guidance and support from adults, explore a variety of digital tools to produce and publish writing, including in collaboration with peers. (CC.K.W.6) | |
| 1.4 Shows curiosity and desire to learn | Speaking and Listening | 2. Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood. (CC.K.SL.2) | |
| 1.12 Demonstrates interest and participates in classroom activities | Reading for Literature | 10. Actively engage in group reading activities with purpose and understanding. (CC.K.RL.10) | |
| 1.15 Understands and respects differences | Speaking and Listening | 2. Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood. (CC.K.SL.2) | |
| 1.18 Respects the rights of others | Speaking and Listening | 1a. Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion). (CC.K.SL.1.a) | |
| 1.22 Shares, takes turns | Speaking and Listening | 1a. Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion). (CC.K.SL.1.a) | |
| | Reading for Literature | 10. Actively engages in group reading activities with purpose and understanding. (CC.K.RL.10) | |
| | Reading for Informational Text | 10. Actively engages in group reading activities with purpose and understanding (CC.K.R.I.10) | |
| | Speaking and Listening | 1a. Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion). (CC.K.SL.1.a) | |

| AECE Benchmarks | | Common Core State Standards | |
|---|--------------------------------|---|--|
| Benchmark | Strand | Standard | |
| 1.23 Follows rules | Speaking and listening | 1a. Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion). (CC.K.SL.1.a) | |
| | Reading for Literature | 10. Actively engages in group reading activities with purpose and understanding. (CC.K.RL.10) | |
| | Reading for Informational Text | 10. Actively engages in group reading activities with purpose and understanding (CC.K.R.I.10) | |
| 1.26 Expresses thoughts and feelings in words | Speaking and Listening | 4. Describe familiar people, places, things, and events and, with prompting and support, provide additional detail. (CC.K.SL.4) | |
| | | 6. Speak audibly and express thoughts, feelings, and ideas clearly (CC.K.SL.6) | |
| | Language | 1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking (CC.K.L1) | |
| | Reading for Informational Text | 10. Actively engage in group reading activities with purpose and understanding. (CC.K.R.I.10) | |
| 1.27 Identifies and understands others' emotions and intentions | Reading for Informational Text | 8. Integration of Knowledge and Ideas: With prompting and support, identify the reasons an author gives to support points in a text. (CC.K.R.I.8) | |
| 1.28 Seeks support from others when needs assistance | Speaking and Listening | 3. Ask and answer questions in order to seek help, get information, or clarify something that is not understood. (CC.K.SL.3) | |
| | Writing | 5. With guidance and support from adults, responds to questions and suggestions from peers and add details to strengthen writing as needed. (CC.K.W.5) | |
| | | 8. With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question. (CC.K.W.8) | |
| 1.29 Expresses strong emotions constructively | Speaking and Listening | 6. Speak audibly and express thoughts, feelings, and ideas clearly. (CC.K.SL.6) | |
| | Writing | 7. Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them.) (CC.K.W.7) | |
| 1.30 Pays attention | Reading for Informational Text | 2. With prompting and support, identify the main topic and retell key details of a text. (CC.K.R.I.2) | |
| | Language | 5d. Distinguish shades of meaning among verbs describing the same general action (e.g., walk, march, strut, prance) by acting out the meanings (CC.K.L.5.d) | |
| | Reading for Literature | 10. Actively engage in group reading activities with purpose and understanding. (CC.K.RL.10) | |

| AECE Benchmarks | | Common Core State Standards | |
|--|--------------------------------|--|--|
| Benchmark | Strand | Standard | |
| 1.32 Practices new skill | Language | 1c. Form regular plural nouns orally by adding /s/ or /es/ (e.g., dog, dogs, wish, wishes). (CC.K.L.1.c) | |
| | Reading for Informational Text | 2. With prompting and support, identify main topic and retell key details of a text. (CC.K.R.I.2) | |
| 2.1 Shows creativity and imagination in play with materials and props | Reading for Literature | 10. Actively engage in group reading activities with purpose and understanding. (CC.K.RL.10) | |
| | Speaking and Listening | 4. Describe familiar people, places, things, and events and, with prompting and support, provide additional detail. (CC.K.SL.4) 5. Add drawings or other visual displays to descriptions as desired to provide additional detail. (CC.K.SL.5) | |
| 2.2 Participates in dramatic play themes that become more involved and complex | Reading for Informational Text | 9. With prompting and support, identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures). (CC.K.R.I.9) | |
| | Speaking and Listening | 5. Add drawings or other visual displays to descriptions as desired to provide additional detail. (CC.K.SL.5) | |
| 2.3 Assumes various roles in dramatic play situations | Reading for Informational Text | 10. Actively engage in group reading activities with purpose and understanding. (CC.K.R.I.10) | |
| | Speaking and Listening | 5. Add drawings or other visual displays to descriptions as desired to provide additional detail. (CC.K.SL.5) | |
| 2.4 Participates freely in music activities | Speaking and Listening | 2. Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood. (CC.K.SL.2) | |
| | | 5. Add drawings or other visual displays to descriptions as desired to provide additional detail. (CC.K.SL.5) | |
| 2.5 Enjoys singing games, dramatizing songs and moving to music | Reading: Foundational Skills | 4. Read emergent-reader texts with purpose and understanding. (CC.K.RF.4) | |
| | Reading for Literature | 10. Actively engage in group reading activities with purpose and understanding. (CC.K.RL.10) | |
| | Speaking and Listening | 5. Add drawings or other visual displays to descriptions as desired to provide additional detail. (CC.K.SL.5) | |
| 2.6 Expresses through movement what is felt and heard in various musical tempos and styles | Speaking and Listening | 5. Add drawings or other visual displays to descriptions as desired to provide additional detail. (CC.K.SL.5) | |
| 2.7 Experiments with a variety of musical instruments and sound sources | Speaking and Listening | 5. Add drawings or other visual displays to descriptions as desired to provide additional detail. (CC.K.SL.5) | |
| 2.8 Identifies the source of a variety of sounds | Speaking and Listening | 5. Add drawings or other visual displays to descriptions as desired to provide additional detail. (CC.K.SL.5) | |
| 2.9 Moves in time to the beat | Speaking and Listening | 5. Add drawings or other visual displays to descriptions as desired to provide additional detail. (CC.K.SL.5) | |

| AECE Benchmarks | | Common Core State Standards | |
|---|------------------------------|--|--|
| Benchmark | Strand | Standard | |
| 2.10 Explores and manipulates art media | Speaking and Listening | 5. Add drawings or other visual displays to descriptions as desired to provide additional detail. (CC.K.SL.5) | |
| 2.11 Creates drawings and paintings that gradually become more detailed and realistic | Reading for Literature | 3. With prompting and support, identify characters, settings, and major events in a story. (CC.K.RL.3) 10. Actively engage in group reading activities with purpose and understanding. (CC.K.RL.10) | |
| | Speaking and Listening | 5. Add drawings or other visual displays to descriptions as desired to provide additional detail. (CC.K.SL.5) | |
| | Writing | 1. Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book (e.g., My favorite book is . . .). (CC.K.W.1) 2. Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic. (CC.K.W.2) 3. Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened. (CC.K.W.3) 6. With guidance and support from adults, explore a variety of digital tools to produce and publish writing, including in collaboration with peers. (CC.K.W.6) | |
| 2.12 Preplans art project and then works with care | Speaking and Listening | 5. Add drawings or other visual displays to descriptions as desired to provide additional detail. (CC.K.SL.5) | |
| 2.13 Recognizes and responds to beauty in the environment | Speaking and Listening | 5. Add drawings or other visual displays to descriptions as desired to provide additional detail. (CC.K.SL.5) | |
| 3.1 Shows enjoyment of books and stories and discussion of them | Language | 1f. Produce and expand complete sentences in shared language activities. (CC.K.L.1.f) 5. With guidance and support from adults, explore word relationships and nuances in word meanings. (CC.K.L.5) 6. Use words and phrases acquired through conversations, reading and being read to, and responding to texts. (CC.K.L.6) | |
| | Reading: Foundational Skills | 4. Read emergent-reader texts with purpose and understanding. (CC.K.RF.4) | |

| AECE Benchmarks | Common Core State Standards | |
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| Benchmark | Strand | Standard |
| <i>Benchmark 3.1, con't...</i> | Reading for Informational Text | <ol style="list-style-type: none"> 1. With prompting and support, ask and answer questions about key details in a text. (CC.K.R.I.1) 2. With prompting and support, identify the main topic and retell key details of a text. (CC.K.R.I.2) 3. With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text. (CC.K.R.I.3) 4. With prompting and support, ask and answer questions about unknown words in a text. (CC.K.R.I.4) 6. Name the author and illustrator of a text and define the role of each in presenting the ideas or information in a text. (CC.K.R.I.6) 7. With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts). (CC.K.R.I.7) 8. Integration of Knowledge and Ideas: With prompting and support, identify the reasons an author gives to support points in a text. (CC.K.R.I.8) 9. With prompting and support, identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures). (CC.K.R.I.9) 10. Actively engage in group reading activities with purpose and understanding. (CC.K.R.I.10) |
| | Reading for Literature | <ol style="list-style-type: none"> 1. With prompting and support, ask and answer questions about key details in a text. (CC.K.RL.1) 3. With prompting and support, identify characters, settings, and major events in a story. (CC.K.RL.3) 5. Recognize common types of texts (e.g., storybooks, poems). (CC.K.RL.5) 6. With prompting and support, name the author and illustrator of a story and define the role of each in telling the story. (CC.K.RL.6) 7. With prompting and support, describe the relationship between illustrations and the story in which they appear (e.g., what moment in a story an illustration depicts). (CC.K.RL.7) 10. Actively engage in group reading activities with purpose and understanding. (CC.K.RL.10) |
| | Speaking and Listening | <ol style="list-style-type: none"> 1a. Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion). (CC.K.SL.1.a) 2. Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood. (CC.K.SL.2) 3. Ask and answer questions in order to seek help, get information, or clarify something that is not understood. (CC.K.SL.3) 5. Add drawings or other visual displays to descriptions as desired to provide additional detail. (CC.K.SL.5) 6. Speak audibly and express thoughts, feelings, and ideas clearly. (CC.K.SL.6) |

| AECE Benchmarks | | Common Core State Standards | |
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| Benchmark | Strand | Standard | |
| Benchmark 3.1, con't... | Writing | 5. With guidance and support from adults, respond to questions and suggestions from peers and add details to strengthen writing as needed. (CC.K.W.5) 7. Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them). (CC.K.W.7) 8. With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question. (CC.K.W.8) | |
| 3.2 Uses picture cues to tell a story | Language | 6. Use words and phrases acquired through conversations, reading and being read to, and responding to texts. (CC.K.L.6) | |
| | Reading for Informational Text | 2. With prompting and support, identify the main topic and retell key details of a text. (CC.K.R.I.2) 3. With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text. (CC.K.R.I.3) 4. With prompting and support, ask and answer questions about unknown words in a text. (CC.K.R.I.4) 7. With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts). (CC.K.R.I.7) | |
| | Reading for Literature | 2. With prompting and support, retell familiar stories, including key details. (CC.K.RL.2) 3. With prompting and support, identify characters, settings, and major events in a story. (CC.K.RL.3) | |
| | Speaking and Listening | 5. Add drawings or other visual displays to descriptions as desired to provide additional detail. (CC.K.SL.5) 6. Speak audibly and express thoughts, feelings, and ideas clearly. (CC.K.SL.6) | |
| | Writing | 3. Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened. (CC.K.W.3) 7. Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them). (CC.K.W.7) | |
| 3.3 Demonstrates knowledge of how to use a book | Reading: Foundational Skills | 1. Demonstrate understanding of the organization and basic features of print. (CC.K.RF.1) 1a. Follow words from left to right, top to bottom, and page by page. (CC.K.RF.1.a) 4. Read emergent-reader texts with purpose and understanding. (CC.K.RF.4) | |
| | Reading for Informational Text | 5. Identify the front cover, back cover, and title page of a book. (CC.K.R.I.5) 6. Name the author and illustrator of a text and define the role of each in presenting the ideas or information in a text. (CC.K.R.I.6) | |
| | Reading for Literature | 6. With prompting and support, name the author and illustrator of a story and define the role of each in telling the story. (CC.K.RL.6) | |

| AECE Benchmarks | | Common Core State Standards | |
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| Benchmark | Strand | Standard | |
| Benchmark 3.3, con't... | Writing | 7. Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them). (CC.K.W.7) | |
| 3.4 Demonstrates visual discrimination and visual memory skills | Language | 5a. Sort common objects into categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent. (CC.K.L.5.a) | |
| | Reading: Foundational Skills | 4. Read emergent-reader texts with purpose and understanding. (CC.K.RF.4) | |
| 3.5 Understands that print conveys a message | Language | 1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. (CC.K.L.1) 1a. Print many upper- and lowercase letters. (CC.K.L.1.a) 1c. Form regular plural nouns orally by adding /s/ or /es/ (e.g., dog, dogs; wish, wishes). (CC.K.L.1.c) 1e. Use the most frequently occurring prepositions (e.g., to, from, in, out, on, off, for, of, by, with). (CC.K.L.1.e) | |
| | Reading: Foundational Skills | 1. Demonstrate understanding of the organization and basic features of print. (CC.K.RF.1) 1b. Recognize that spoken words are represented in written language by specific sequences of letters. (CC.K.RF.1.b) 1c. Understand that words are separated by spaces in print. (CC.K.RF.1.c) 3c. Read common high-frequency words by sight. (e.g., the, of, to, you, she, my, is, are, do, does). (CC.K.RF.3.c) | |
| | Reading for Informational Text | 10. Actively engage in group reading activities with purpose and understanding. (CC.K.RI.10) | |
| | Reading for Literature | 5. Recognize common types of texts (e.g., storybooks, poems). (CC.K.RL.5) | |
| | Writing | 1. Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book (e.g., My favorite book is . . .). (CC.K.W.1) 2. Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic. (CC.K.W.2) 3. Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened. (CC.K.W.3) 5. With guidance and support from adults, respond to questions and suggestions from peers and add details to strengthen writing as needed. (CC.K.W.5) 7. Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them). (CC.K.W.7) | |

| AECE Benchmarks | | Common Core State Standards | |
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| Benchmark | Strand | Standard | |
| 3.6 Demonstrates an interest in using writing for a purpose | Language | 1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. (CC.K.L.1) 1a. Print many upper- and lowercase letters. (CC.K.L.1.a) 6. Use words and phrases acquired through conversations, reading and being read to, and responding to texts. (CC.K.L.6) | |
| | Reading: Foundational Skills | 3a. Demonstrate basic knowledge of letter-sound correspondences by producing the primary or most frequent sound for each consonant. (CC.K.RF.3.a) | |
| | Reading for Literature | 10. Actively engage in group reading activities with purpose and understanding. (CC.K.RL.10) | |
| | Speaking and Listening | 5. Add drawings or other visual displays to descriptions as desired to provide additional detail. (CC.K.SL.5) | |
| | Writing | 1. Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book (e.g., My favorite book is . . .). (CC.K.W.1) 2. Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic. (CC.K.W.2) 3. Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened. (CC.K.W.3) 5. With guidance and support from adults, respond to questions and suggestions from peers and add details to strengthen writing as needed. (CC.K.W.5) 6. With guidance and support from adults, explore a variety of digital tools to produce and publish writing, including in collaboration with peers. (CC.K.W.6) 7. Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them). (CC.K.W.7) | |
| 3.7 Identifies letters and signs in the environment | Language | 1a. Print many upper- and lowercase letters. (CC.K.L.1.a) 5a. Sort common objects into categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent. (CC.K.L.5.a) | |
| | Reading: Foundational Skills | 1c. Understand that words are separated by spaces in print. (CC.K.RF.1.c) 1b. Recognize that spoken words are represented in written language by specific sequences of letters. (CC.K.RF.1.b) 1d. Recognize and name all upper- and lowercase letters of the alphabet. (CC.K.RF.1.d) 3c. Read common high-frequency words by sight. (e.g., the, of, to, you, she, my, is, are, do, does). (CC.K.RF.3.c) | |

| AECE Benchmarks | | Common Core State Standards | |
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| Benchmark | Strand | Standard | |
| <i>Benchmark 3.7, con't...</i> | Reading for Informational Text | 10. Actively engage in group reading activities with purpose and understanding. (CC.K.RI.10) | |
| | Reading for Literature | 5. Recognize common types of texts (e.g., storybooks, poems). (CC.K.RL.5) | |
| | Writing | 2. Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic. (CC.K.W.2) 7. Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them). (CC.K.W.7) | |
| 3.8 Uses known letters or approximation of letters to represent written language | Language | 1a. Print many upper- and lowercase letters. (CC.K.L.1.a) 1d. Understand and use question words (interrogatives) (e.g., who, what, where, when, why, how). (CC.K.L.1.d) 1f. Produce and expand complete sentences in shared language activities. (CC.K.L.1.f) 2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. (CC.K.L.2) 2a. Capitalize the first word in a sentence and the pronoun I. (CC.K.L.2.a) 2b. Recognize and name end punctuation. (CC.K.L.2.b) 2c. Write a letter or letters for most consonant and short-vowel sounds (phonemes). (CC.K.L.2.c) 2d. Spell simple words phonetically, drawing on knowledge of sound-letter relationships. (CC.K.L.2.d) | |
| | Reading: Foundational Skills | 1. Demonstrate understanding of the organization and basic features of print. (CC.K.RF.1) 3a. Demonstrate basic knowledge of letter-sound correspondences by producing the primary or most frequent sound for each consonant. (CC.K.RF.3.a) 3c. Read common high-frequency words by sight. (e.g., the, of, to, you, she, my, is, are, do, does). (CC.K.RF.3.c) | |
| | Writing | 1. Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book (e.g., My favorite book is . . .). (CC.K.W.1) 2. Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic. (CC.K.W.2) 3. Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened. (CC.K.W.3) 5. With guidance and support from adults, respond to questions and suggestions from peers and add details to strengthen writing as needed. (CC.K.W.5) 6. With guidance and support from adults, explore a variety of digital tools to produce and publish writing, including in collaboration with peers. (CC.K.W.6) | |

| AECE Benchmarks | | Common Core State Standards | |
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| Benchmark | Strand | Standard | |
| 3.9 Identifies some letters and makes some letter-sound matches | Language | 2c. Write a letter or letters for most consonant and short-vowel sounds (phonemes). (CC.K.L.2.c) | |
| | Reading: Foundational Skills | 1d. Recognize and name all upper- and lowercase letters of the alphabet. (CC.K.RF.1.d) 3a. Demonstrate basic knowledge of letter-sound correspondences by producing the primary or most frequent sound for each consonant. (CC.K.RF.3.a) | |
| | Reading for Informational Text | 4. With prompting and support, ask and answer questions about unknown words in a text. (CC.K.RI.4) | |
| | Reading for Literature | 4. Ask and answer questions about unknown words in a text. (CC.K.RL.4) | |
| 3.10 Classifies objects by physical features such as shape or color | Language | 5a. Sort common objects into categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent. (CC.K.L.5.a) | |
| 3.11 Classifies objects conceptually (things that go together) | Language | 5a. Sort common objects into categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent. (CC.K.L.5.a) | |
| 3.12 Recognizes patterns and can repeat them (patterning) | Reading: Foundational Skills | 4. Read emergent-reader texts with purpose and understanding. (CC.K.RF.4) | |
| | Reading for Informational Text | 10. Actively engage in group reading activities with purpose and understanding. (CC.K.RI.10) | |
| 3.13 Demonstrates one-to-one correspondence | Reading: Foundational Skills | 1. Demonstrate understanding of the organization and basic features of print. (CC.K.RF.1) 1b. Recognize that spoken words are represented in written language by specific sequences of letters. (CC.K.RF.1.b) 1c. Understand that words are separated by spaces in print. (CC.K.RF.1.c) 2. Demonstrate understanding of spoken words, syllables, and sounds (phonemes). (CC.K.RF.2) 3a. Demonstrate basic knowledge of letter-sound correspondences by producing the primary or most frequent sound for each consonant. (CC.K.RF.3.a) | |
| 3.19 Shows interest in exploring the environment | Writing | 7. Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them). (CC.K.W.7) | |
| 3.20 Uses senses to learn about the characteristics of the environment and to collect data (scientific process: observing) | Writing | 7. Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them). (CC.K.W.7) | |
| 3.21 Uses words to describe the characteristics of objects (scientific process: communicating) | Writing | 7. Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them). (CC.K.W.7) | |

| AECE Benchmarks | | Common Core State Standards | |
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| Benchmark | Strand | Standard | |
| 3.23 Shows awareness of cause-effect relationships | Writing | 7. Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them). (CC.K.W.7) | |
| 3.26 Discusses natural events in the environment | Reading for Literature | 1. With prompting and support, ask and answer questions about key details in a text (CC.K.RL.1) | |
| 3.41 Independently applies technology and tools to address a variety of tasks and problems | Speaking and Listening | 5. Add drawings or other visual displays to descriptions as desired to provide additional details. (CC.K.SL.5). | |
| | Writing | 6. With guidance and support from adults, explore a variety of digital tools to produce and publish writing, including in collaboration with peers. (CC.K.W.6) | |
| 3.42 Shows awareness of technology and tools and their impact on how people live | Language | 5c. Identify real-life connections between words and their use (e.g., note places at school that are colorful). (CC.K.L.5.c) | |
| | Reading for Literature | 6. With prompting and support, name the author and illustrator of a story and define the role of each in telling the story (CC.K.R.K.6) | |
| | Speaking and Listening | 4. Describe familiar people, places, things, and events and, with prompting and support, provide additional detail. (CC.K.SL.4) | |
| 3.43 Identifies purpose of common technologies and tools | Writing | 1. Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state a opinion or preference about the topic or book (e.g., My favorite book is...). (CC.K.W.1) 2. Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic. (CC.K.W.2) 3. Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened. (CC.K.W.3) | |
| 3.44 Demonstrates the safe and cooperative use of technology and tools | Language | 1a. Print many upper-and lowercase letters. (CC.K.L.1.a) | |
| | Reading: Foundational Skills | 1a. Follow words from left to right, top to bottom, and page by page. (CC.K.RF.1.a) | |
| | Speaking and Listening | 5. Add drawings or other displays to descriptions as desired to provide additional details (CC.K.SL.5) | |

| AECE Benchmarks | | Common Core State Standards | |
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| Benchmark | Strand | Standard | |
| <i>Benchmark 3.44, con't...</i> | Writing | <ol style="list-style-type: none"> 1. Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state a opinion or preference about the topic or book (e.g., My favorite book is...). (CC.K.W.1) 2. Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic. (CC.K.W.2) 3. Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened. (CC.K.W.3) 6. With guidance and support from adults, explore a variety of digital tools to produce and publish writing, including in collaboration with peers. (CC.K.W.6) | |
| 3.45 Communicates about technology and tools using developmentally appropriate and accurate terminology | Language | <ol style="list-style-type: none"> 1f. Produce and expand complete sentences in shared language activities. (CC.K.L.1.f) 6. Use words and phrases acquired through conversations, reading and being read to, and responding to texts. (CC.K.L.6) | |
| 4.8 Uses writing and drawing tools with control and intention | Language | <ol style="list-style-type: none"> 1a. Print many upper- and lowercase letters. (CC.K.L.1.a) 2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. (CC.K.L.2) | |
| 5.1 Demonstrates phonological awareness (hearing and recognizing the sounds of language) | Language | <ol style="list-style-type: none"> 1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. (CC.K.L.1) 1f. Produce and expand complete sentences in shared language activities. (CC.K.L.1.f) 4b. Use the most frequently occurring inflections and affixes (e.g., -ed, -s, re-, un-, pre-, -ful, -less) as a clue to the meaning of an unknown word. (CC.K.L.4.b) 5d. Distinguish shades of meaning among verbs describing the same general action (e.g., walk, march, strut, prance) by acting out the meanings. (CC.K.L.5.d) | |

| AECE Benchmarks | | Common Core State Standards | |
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| Benchmark | Strand | Standard | |
| <i>Benchmark 5.1, con't...</i> | Reading: Foundational Skills | 1. Demonstrate understanding of the organization and basic features of print. (CC.K.RF.1) 1b. Recognize that spoken words are represented in written language by specific sequences of letters. (CC.K.RF.1.b) 2. Demonstrate understanding of spoken words, syllables, and sounds (phonemes). (CC.K.RF.2) 2a. Recognize and produce rhyming words. (CC.K.RF.2.a) 2b. Count, pronounce, blend, and segment syllables in spoken words. (CC.K.RF.2.b) 2c. Blend and segment onsets and rimes of single-syllable spoken words. (CC.K.RF.2.c) 2d. Isolate and pronounce the initial, medial vowel, and final sounds (phonemes) in three-phoneme (consonant-vowel-consonant, or CVC) words.*(This does not include CVCs ending with /l/, /r/, or /x/.) (CC.K.RF.2.d) 2e. Add or substitute individual sounds (phonemes) in simple, one-syllable words to make new words. (CC.K.RF.2.e) 3. Know and apply grade-level phonics and word analysis skills in decoding words. (CC.K.RF.3) 3a. Demonstrate basic knowledge of letter-sound correspondences by producing the primary or most frequent sound for each consonant. (CC.K.RF.3.a) 3b. Associate the long and short sounds with the common spellings (graphemes) for the five major vowels. (CC.K.RF.3.b) 3d. Distinguish between similarly spelled words by identifying the sounds of the letters that differ. (CC.K.RF.3.d) | |
| | Reading for Literature | 10. Actively engage in group reading activities with purpose and understanding. (CC.K.RL.10) | |
| | Speaking and Listening | 4. Describe familiar people, places, things, and events and, with prompting and support, provide additional detail. (CC.K.SL.4) 6. Speak audibly and express thoughts, feelings, and ideas clearly. (CC.K.SL.6) | |
| 5.2 Uses effective oral communication skills: speaking in complete sentences, speaking with appropriate grammar | Speaking and Listening | 1. Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups. (CC.K.SL.1) 1b. Continue a conversation through multiple exchanges. (CC.K.SL.1.b) 3. Ask and answer questions in order to seek help, get information, or clarify something that is not understood. (CC.K.SL.3) 4. Describe familiar people, places, things, and events and, with prompting and support, provide additional detail. (CC.K.SL.4) 6. Speak audibly and express thoughts, feelings, and ideas clearly. (CC.K.SL.6) | |

| AECE Benchmarks | | Common Core State Standards | |
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| Benchmark | Strand | Standard | |
| 5.3 Expands vocabulary | Language | 1b. Use frequently occurring nouns and verbs. (CC.K.L.1.b) 4a. Identify new meanings for familiar words and apply them accurately (e.g., knowing duck is a bird and learning the verb to duck). (CC.K.L.4.a) 5. With guidance and support from adults, explore word relationships and nuances in word meanings. (CC.K.L.5) 5b. Demonstrate understanding of frequently occurring verbs and adjectives by relating them to their opposites (antonyms). (CC.K.L.5.b) 5d. Distinguish shades of meaning among verbs describing the same general action (e.g., walk, march, strut, prance) by acting out the meanings. (CC.K.L.5.d) 6. Use words and phrases acquired through conversations, reading and being read to, and responding to texts. (CC.K.L.6) | |
| | Reading for Literature | 4. Ask and answer questions about unknown words in a text. (CC.K.RL.4) | |
| 5.4 Recognizes and identifies by name most common objects and pictures | Language | 4a. Identify new meanings for familiar words and apply them accurately (e.g., knowing duck is a bird and learning the verb to duck). (CC.K.L.4.a) 5a. Sort common objects into categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent. (CC.K.L.5.a) 5c. Identify real-life connections between words and their use (e.g., note places at school that are colorful). (CC.K.L.5.c) | |
| | Reading for Literature | 7. With prompting and support, describe the relationship between illustrations and the story in which they appear (e.g., what moment in a story an illustration depicts). (CC.K.RL.7) | |
| | Speaking and Listening | 5. Add drawings or other visual displays to descriptions as desired to provide additional detail. (CC.K.SL.5) | |
| 5.5 Participates in songs, fingerplays, rhyming activities, and games | Language | 5d. Distinguish shades of meaning among verbs describing the same general action (e.g., walk, march, strut, prance) by acting out the meanings. (CC.K.L.5.d) 6. Use words and phrases acquired through conversations, reading and being read to, and responding to texts. (CC.K.L.6) | |

| AECE Benchmarks | Common Core State Standards | |
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| Benchmark | Strand | Standard |
| <i>Benchmark 5.5, con't...</i> | Reading: Foundational Skills | 2. Demonstrate understanding of spoken words, syllables, and sounds (phonemes). (CC.K.RF.2) 2a. Recognize and produce rhyming words. (CC.K.RF.2.a) 2b. Count, pronounce, blend, and segment syllables in spoken words. (CC.K.RF.2.b) 2c. Blend and segment onsets and rimes of single-syllable spoken words. (CC.K.RF.2.c) 3a. Demonstrate basic knowledge of letter-sound correspondences by producing the primary or most frequent sound for each consonant. (CC.K.RF.3.a) 3d. Distinguish between similarly spelled words by identifying the sounds of the letters that differ. (CC.K.RF.3.d) 4. Read emergent-reader texts with purpose and understanding. (CC.K.RF.4) |
| | Reading for Informational Text | 10. Actively engage in group reading activities with purpose and understanding. (CC.K.RI.10) |
| | Reading for Literature | 10. Actively engage in group reading activities with purpose and understanding. (CC.K.RL.10) |
| | Speaking and Listening | 1b. Continue a conversation through multiple exchanges. (CC.K.SL.1.b) 2. Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood. (CC.K.SL.2) |
| 5.6 Uses words to communicate ideas | Language | 4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on kindergarten reading and content. (CC.K.L.4) 6. Use words and phrases acquired through conversations, reading and being read to, and responding to texts. (CC.K.L.6) |
| | Reading: Foundational Skills | 4. Read emergent-reader texts with purpose and understanding. (CC.K.RF.4) |
| | Reading for Informational Text | 1. With prompting and support, ask and answer questions about key details in a text. (CC.K.RI.1) 2. With prompting and support, identify the main topic and retell key details of a text. (CC.K.RI.2) |
| | Reading for Literature | 1. With prompting and support, ask and answer questions about key details in a text. (CC.K.RL.1) 10. Actively engage in group reading activities with purpose and understanding. (CC.K.RL.10) |

| AECE Benchmarks | | Common Core State Standards | |
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| Benchmark | Strand | Standard | |
| Benchmark 5.6, con't... | Speaking and Listening | <ol style="list-style-type: none"> 1. Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups. (CC.K.SL.1) 1b. Continue a conversation through multiple exchanges. (CC.K.SL.1.b) 2. Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood. (CC.K.SL.2) 3. Ask and answer questions in order to seek help, get information, or clarify something that is not understood. (CC.K.SL.3) 4. Describe familiar people, places, things, and events and, with prompting and support, provide additional detail. (CC.K.SL.4) 6. Speak audibly and express thoughts, feelings, and ideas clearly. (CC.K.SL.6) | |
| 5.7 Engages in two-way conversation with children and adults | Language | <ol style="list-style-type: none"> 5. With guidance and support from adults, explore word relationships and nuances in word meanings. (CC.K.L.5) 6. Use words and phrases acquired through conversations, reading and being read to, and responding to texts. (CC.K.L.6) | |
| | Reading for Informational Text | <ol style="list-style-type: none"> 1. With prompting and support, ask and answer questions about key details in a text. (CC.K.RI.1) | |
| | Reading for Literature | <ol style="list-style-type: none"> 1. With prompting and support, ask and answer questions about key details in a text. (CC.K.RL.1) 10. Actively engage in group reading activities with purpose and understanding. (CC.K.RL.10) | |
| | Speaking and Listening | <ol style="list-style-type: none"> 1. Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups. (CC.K.SL.1) 1a. Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion). (CC.K.SL.1.a) 1b. Continue a conversation through multiple exchanges. (CC.K.SL.1.b) 2. Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood. (CC.K.SL.2) 3. Ask and answer questions in order to seek help, get information, or clarify something that is not understood. (CC.K.SL.3) | |

| AECE Benchmarks | Common Core State Standards | |
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| Benchmark | Strand | Standard |
| 5.8 Participates in group discussion | Language | 1f. Produce and expand complete sentences in shared language activities. (CC.K.L.1.f) |
| | Reading for Informational Text | 1. With prompting and support, ask and answer questions about key details in a text. (CC.K.RI.1) |
| | Reading for Literature | 10. Actively engage in group reading activities with purpose and understanding. (CC.K.RL.10) |
| | Speaking and Listening | 1. Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups. (CC.K.SL.1) 1a. Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion). (CC.K.SL.1.a) 1b. Continue a conversation through multiple exchanges. (CC.K.SL.1.b) 3. Ask and answer questions in order to seek help, get information, or clarify something that is not understood. (CC.K.SL.3) 4. Describe familiar people, places, things, and events and, with prompting and support, provide additional detail. (CC.K.SL.4) 6. Speak audibly and express thoughts, feelings, and ideas clearly. (CC.K.SL.6) |
| | Writing | 5. With guidance and support from adults, respond to questions and suggestions from peers and add details to strengthen writing as needed. (CC.K.W.5) |
| 5.9 Uses language to problem solve | Reading for Informational Text | 1. With prompting and support, ask and answer questions about key details in a text. (CC.K.RI.1) |
| | Speaking and Listening | 1a. Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion). (CC.K.SL.1.a) 3. Ask and answer questions in order to seek help, get information, or clarify something that is not understood. (CC.K.SL.3) 4. Describe familiar people, places, things, and events and, with prompting and support, provide additional detail. (CC.K.SL.4) 6. Speak audibly and express thoughts, feelings, and ideas clearly. (CC.K.SL.6) |
| | Writing | 5. With guidance and support from adults, respond to questions and suggestions from peers and add details to strengthen writing as needed. (CC.K.W.5) |
| 5.10 Follows directions in sequence | Speaking and Listening | 3. Ask and answer questions in order to seek help, get information, or clarify something that is not understood. (CC.K.SL.3) |

| AECE Benchmarks | | Common Core State Standards | |
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| Benchmark | Strand | Standard | |
| 5.11 Tells a story | Speaking and Listening | 1. Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups. (CC.K.SL.1) 1a. Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion). (CC.K.SL.1.a) 1b. Continue a conversation through multiple exchanges. (CC.K.SL.1.b) 3. Ask and answer questions in order to seek help, get information, or clarify something that is not understood. (CC.K.SL.3) 4. Describe familiar people, places, things, and events and, with prompting and support, provide additional detail. (CC.K.SL.4) 6. Speak audibly and express thoughts, feelings, and ideas clearly. (CC.K.SL.6) | |
| | Language | 6. Uses words and phrases acquired through conversations, reading and being read to, and responding to texts. (CC.K.L.6) | |
| | Reading for Informational Text | 3. With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text. (CC.K.RI.2) 7. With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g. what person, place, thing, or idea in the text an illustration depicts) (CC.K.RI.7) 10. Actively engage in group reading activities with purposes and understanding. (CC.K.RI.10) | |

Continuum in Reverse Order: Common Core State Standards for English Language Arts Kindergarten Level with the Arkansas Early Childhood Education Framework Handbook for Three and Four Year Old Children

| Common Core State Standards | AECE Benchmarks |
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| Language | |
| 1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. (CC.K.L.1) | 3.5 Understands that print conveys a message 3.6 Demonstrates an interest in using writing for a purpose 5.1 Demonstrates phonological awareness (hearing and recognizing the sounds of language) |
| 1a Print many upper- and lowercase letters. (CC.K.L.1.a) | 3.5 Understands that print conveys a message 3.6 Demonstrates an interest in using writing for a purpose 3.7 Identifies letters and signs in the environment 3.8 Uses known letters or approximation of letters to represent written language 3.44 Demonstrates the safe and cooperative use of technology and tools 4.8 Uses writing and drawing tools with control and intention |
| 1b. Use frequently occurring nouns and verbs. (CC.K.L.1.b) | 5.3 Expands vocabulary |
| 1c. Form regular plural nouns orally by adding /s/ or /es/ (e.g., dog, dogs; wish, wishes). (CC.K.L.1.c) | 1.32 Practices new skill 3.5 Understands that print conveys a message |
| 1d. Understand and use question words (interrogatives) (e.g., who, what, where, when, why, how). (CC.K.L.1.d) | 3.8 Uses known letters or approximation of letters to represent written language |
| 1e. Use the most frequently occurring prepositions (e.g., to, from, in, out, on, off, for, of, by, with). (CC.K.L.1.e) | 3.5 Understands that print conveys a message |
| 1f. Produce and expand complete sentences in shared language activities. (CC.K.L.1.f) | 3.1 Shows enjoyment of books and stories and discussion of them 3.45 Communicates about technology and tools using developmentally appropriate and accurate terminology 3.8 Uses known letters or approximation of letters to represent written language 5.1 Demonstrates phonological awareness (hearing and recognizing the sounds of language) 5.8 Participates in group discussion |
| 2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. (CC.K.L.2) | 3.8 Uses known letters or approximation of letters to represent written language 4.8 Uses writing and drawing tools with control and intention |
| 2a. Capitalize the first word in a sentence and the pronoun I. (CC.K.L.2.a) | 3.8 Uses known letters or approximation of letters to represent written language |

| Common Core State Standards | AECE Benchmarks |
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| 2b. Recognize and name end punctuation. (CC.K.L.2.b) | 3.8 Uses known letters or approximation of letters to represent written language |
| 2c. Write a letter or letters for most consonant and short-vowel sounds (phonemes). (CC.K.L.2.c) | 3.8 Uses known letters or approximation of letters to represent written language 3.9 Identifies some letters and makes some letter-sound matches |
| 2d. Spell simple words phonetically, drawing on knowledge of sound-letter relationships. (CC.K.L.2.d) | 3.8 Uses known letters or approximation of letters to represent written language |
| 4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on kindergarten reading and content. (CC.K.L.4) | 5.6 Uses words to communicate ideas |
| 4a. Identify new meanings for familiar words and apply them accurately (e.g., knowing duck is a bird and learning the verb to duck). (CC.K.L.4.a) | 5.3 Expands vocabulary 5.4 Recognizes and identifies by name most common objects and pictures |
| 4b. Use the most frequently occurring inflections and affixes (e.g., -ed, -s, re-, un-, pre-, -ful, -less) as a clue to the meaning of an unknown word. (CC.K.L.4.b) | 5.1 Demonstrates phonological awareness (hearing and recognizing the sounds of language) |
| 5. With guidance and support from adults, explore word relationships and nuances in word meanings. (CC.K.L.5) | 3.1 Shows enjoyment of books and stories and discussion of them 5.3 Expands vocabulary 5.7 Engages in two-way conversation with children and adults |
| 5a. Sort common objects into categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent. (CC.K.L.5.a) | 3.4 Demonstrates visual discrimination and visual memory skills 3.7 Identifies letters and signs in the environment 3.10 Classifies objects by physical features such as shape or color 3.11 Classifies objects conceptually (things that go together) 5.4 Recognizes and identifies by name most common objects and pictures |
| 5b. Demonstrate understanding of frequently occurring verbs and adjectives by relating them to their opposites (antonyms). (CC.K.L.5.b) | 5.3 Expands vocabulary |
| 5c. Identify real-life connections between words and their use (e.g., note places at school that are colorful). (CC.K.L.5.c) | 5.4 Recognizes and identifies by name most common objects and pictures 3.42 Shows awareness of technology and tools and their impact on how people live |
| 5d. Distinguish shades of meaning among verbs describing the same general action (e.g., walk, march, strut, prance) by acting out the meanings. (CC.K.L.5.d) | 1.30 Pays attention 5.1 Demonstrates phonological awareness (hearing and recognizing the sounds of language) 5.3 Expands vocabulary 5.5 Participates in songs, fingerplays, rhyming activities, and games |

| Common Core State Standards | AECE Benchmarks |
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| 6. Use words and phrases acquired through conversations, reading and being read to, and responding to texts. (CC.K.L.6) | 3.1 Shows enjoyment of books and stories and discussion of them 3.2 Uses picture cues to tell a story 3.6 Demonstrates an interest in using writing for a purpose 3.45 Communicates about technology and tools using developmentally appropriate and accurate terminology 5.3 Expands vocabulary 5.5 Participates in songs, fingerplays, rhyming activities, and games 5.6 Uses words to communicate ideas 5.7 Engages in two-way conversation with children and adults 5.11 Tells a story |
| Reading for Informational Text | |
| 1. With prompting and support, ask and answer questions about key details in a text. (CC.K.RI.1) | 3.1 Shows enjoyment of books and stories and discussion of them 5.6 Uses words to communicate ideas 5.7 Engages in two-way conversation with children and adults 5.8 Participates in group discussion 5.9 Uses language to problem solve |
| 2. With prompting and support, identify the main topic and retell key details of a text. (CC.K.RI.2) | 1.30 Pays attention 1.32 Practices new skill 3.1 Shows enjoyment of books and stories and discussion of them 3.2 Uses picture cues to tell a story 5.6 Uses words to communicate ideas |
| 3. With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text. (CC.K.RI.3) | 3.1 Shows enjoyment of books and stories and discussion of them 3.2 Uses picture cues to tell a story 5.11 Tells a story |
| 4. With prompting and support, ask and answer questions about unknown words in a text. (CC.K.RI.4) | 3.1 Shows enjoyment of books and stories and discussion of them 3.2 Uses picture cues to tell a story 3.9 Identifies some letters and makes some letter-sound matches |
| 5. Identify the front cover, back cover, and title page of a book. (CC.K.RI.5) | 3.3 Demonstrates knowledge of how to use a book |

| Common Core State Standards | AECE Benchmarks |
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| 6. Name the author and illustrator of a text and define the role of each in presenting the ideas or information in a text. (CC.K.RI.6) | 3.1 Shows enjoyment of books and stories and discussion of them 3.3 Demonstrates knowledge of how to use a book |
| 7. With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts). (CC.K.RI.7) | 3.1 Shows enjoyment of books and stories and discussion of them 3.2 Uses picture cues to tell a story 5.11 Tells a story |
| 8. Integration of Knowledge and Ideas: With prompting and support, identify the reasons an author gives to support points in a text. CC.K.RI.8 | 3.1 Shows enjoyment of books and stories and discussion of them |
| 9. With prompting and support, identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures). (CC.K.RI.9) | 2.2 Participates in dramatic play themes that become more involved and complex 3.1 Shows enjoyment of books and stories and discussion of them |
| 10. Actively engage in group reading activities with purpose and understanding. (CC.K.RI.10) | 2.3 Assumes various roles in dramatic play situations 3.1 Shows enjoyment of books and stories and discussion of them 3.5 Understands that print conveys a message 3.7 Identifies letters and signs in the environment 3.12 Recognizes patterns and can repeat them (patterning) 5.5 Participates in songs, fingerplays, rhyming activities, and games 5.11 Tells a story |
| Reading for Literature | |
| 1. With prompting and support, ask and answer questions about key details in a text. (CC.K.RL.1) | 3.1 Shows enjoyment of books and stories and discussion of them 3.26 Discusses natural events in the environment 5.6 Uses words to communicate ideas 5.7 Engages in two-way conversation with children and adults |
| 2. With prompting and support, retell familiar stories, including key details. (CC.K.RL.2) | 3.2 Uses picture cues to tell a story |
| 3. With prompting and support, identify characters, settings, and major events in a story. (CC.K.RL.3) | 2.11 Creates drawings and paintings that gradually become more detailed and realistic 3.1 Shows enjoyment of books and stories and discussion of them 3.2 Uses picture cues to tell a story |

| Common Core State Standards | AECE Benchmarks |
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| 4. Ask and answer questions about unknown words in a text. (CC.K.RL.4) | 1.28 Seeks support from others when needs assistance 3.9 Identifies some letters and makes some letter-sound matches 5.3 Expands vocabulary |
| 5. Recognize common types of texts (e.g., storybooks, poems). (CC.K.RL.5) | 3.1 Shows enjoyment of books and stories and discussion of them 3.5 Understands that print conveys a message 3.7 Identifies letters and signs in the environment |
| 6. With prompting and support, name the author and illustrator of a story and define the role of each in telling the story. (CC.K.RL.6) | 3.1 Shows enjoyment of books and stories and discussion of them 3.3 Demonstrates knowledge of how to use a book 3.42 Shows awareness of technology and tools and their impact on how people live |
| 7. With prompting and support, describe the relationship between illustrations and the story in which they appear (e.g., what moment in a story an illustration depicts). (CC.K.RL.7) | 1.27 Identifies and understands others' emotions and intentions 3.1 Shows enjoyment of books and stories and discussion of them 5.4 Recognizes and identifies by name most common objects and pictures |
| 9. With prompting and support, compare and contrast the adventures and experiences of characters in familiar stories. (CC.K.RL.9) | 3.1 Shows enjoyment of books and stories and discussion of them |
| 10. Actively engage in group reading activities with purpose and understanding. (CC.K.RL.10) | 1.12 Demonstrates interest and participates in classroom activities 1.30 Pays attention 2.1 Shows creativity and imagination in play with materials and props 2.5 Enjoys singing games, dramatizing songs and moving to music 2.11 Creates drawings and paintings that gradually become more detailed and realistic 3.1 Shows enjoyment of books and stories and discussion of them 3.6 Demonstrates an interest in using writing for a purpose 5.1 Demonstrates phonological awareness (hearing and recognizing the sounds of language) 5.5 Participates in songs, fingerplays, rhyming activities, and games 5.6 Uses words to communicate ideas 5.7 Engages in two-way conversation with children and adults 5.8 Participates in group discussion 5.11 Tells a story |

| Common Core State Standards | AECE Benchmarks |
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| Reading: Foundational Skills | |
| 1. Demonstrate understanding of the organization and basic features of print. (CC.K.RF.1) | 3.3 Demonstrates knowledge of how to use a book 3.5 Understands that print conveys a message 3.8 Uses known letters or approximation of letters to represent written language 3.13 Demonstrates one-to-one correspondence 5.1 Demonstrates phonological awareness (hearing and recognizing the sounds of language) |
| 1a. Follow words from left to right, top to bottom, and page by page. (CC.K.RF.1.a) | 3.3 Demonstrates knowledge of how to use a book 3.44 Demonstrates the safe and cooperative use of technology and tools |
| 1b. Recognize that spoken words are represented in written language by specific sequences of letters. (CC.K.RF.1.b) | 3.5 Understands that print conveys a message 3.7 Identifies letters and signs in the environment 3.13 Demonstrates one-to-one correspondence 5.1 Demonstrates phonological awareness (hearing and recognizing the sounds of language) |
| 1c. Understand that words are separated by spaces in print. (CC.K.RF.1.c) | 3.5 Understands that print conveys a message 3.7 Identifies letters and signs in the environment 3.13 Demonstrates one-to-one correspondence |
| 1d. Recognize and name all upper- and lowercase letters of the alphabet. (CC.K.RF.1.d) | 3.7 Identifies letters and signs in the environment 3.9 Identifies some letters and makes some letter-sound matches |
| 2. Demonstrate understanding of spoken words, syllables, and sounds (phonemes). (CC.K.RF.2) | 3.13 Demonstrates one-to-one correspondence 5.1 Demonstrates phonological awareness (hearing and recognizing the sounds of language) 5.5 Participates in songs, fingerplays, rhyming activities, and games |
| 2a. Recognize and produce rhyming words. (CC.K.RF.2.a) | 5.1 Demonstrates phonological awareness (hearing and recognizing the sounds of language) 5.5 Participates in songs, fingerplays, rhyming activities, and games |
| 2b. Count, pronounce, blend, and segment syllables in spoken words. (CC.K.RF.2.b) | 5.1 Demonstrates phonological awareness (hearing and recognizing the sounds of language) 5.5 Participates in songs, fingerplays, rhyming activities, and games |
| 2c. Blend and segment onsets and rimes of single-syllable spoken words. (CC.K.RF.2.c) | 5.1 Demonstrates phonological awareness (hearing and recognizing the sounds of language) 5.5 Participates in songs, fingerplays, rhyming activities, and games |

| Common Core State Standards | AECE Benchmarks |
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| 2d. Isolate and pronounce the initial, medial vowel, and final sounds (phonemes) in three-phoneme (consonant-vowel-consonant, or CVC) words.* (This does not include CVCs ending with /l/, /r/, or /x/.) (CC.K.RF.2.d) | 5.1 Demonstrates phonological awareness (hearing and recognizing the sounds of language) |
| 2e. Add or substitute individual sounds (phonemes) in simple, one-syllable words to make new words. (CC.K.RF.2.e) | 5.1 Demonstrates phonological awareness (hearing and recognizing the sounds of language) |
| 3. Know and apply grade-level phonics and word analysis skills in decoding words. (CC.K.RF.3) | 5.1 Demonstrates phonological awareness (hearing and recognizing the sounds of language) |
| 3a. Demonstrate basic knowledge of letter-sound correspondences by producing the primary or most frequent sound for each consonant. (CC.K.RF.3.a) | 3.6 Demonstrates an interest in using writing for a purpose |
| | 3.8 Uses known letters or approximation of letters to represent written language |
| | 3.9 Identifies some letters and makes some letter-sound matches |
| | 3.13 Demonstrates one-to-one correspondence |
| | 5.1 Demonstrates phonological awareness (hearing and recognizing the sounds of language) |
| 3b. Associate the long and short sounds with the common spellings (graphemes) for the five major vowels. (CC.K.RF.3.b) | 5.5 Participates in songs, fingerplays, rhyming activities, and games |
| | 5.1 Demonstrates phonological awareness (hearing and recognizing the sounds of language) |
| 3c. Read common high-frequency words by sight. (e.g., the, of, to, you, she, my, is, are, do, does). (CC.K.RF.3.c) | 3.5 Understands that print conveys a message |
| | 3.7 Identifies letters and signs in the environment |
| | 3.8 Uses known letters or approximation of letters to represent written language |
| 3d. Distinguish between similarly spelled words by identifying the sounds of the letters that differ. (CC.K.RF.3.d) | 5.1 Demonstrates phonological awareness (hearing and recognizing the sounds of language) |
| | 5.5 Participates in songs, fingerplays, rhyming activities, and games |
| 4. Read emergent-reader texts with purpose and understanding. (CC.K.RF.4) | 2.5 Enjoys singing games, dramatizing songs and moving to music |
| | 3.1 Shows enjoyment of books and stories and discussion of them |
| | 3.3 Demonstrates knowledge of how to use a book |
| | 3.4 Demonstrates visual discrimination and visual memory skills |
| | 3.12 Recognizes patterns and can repeat them (patterning) |
| | 5.5 Participates in songs, fingerplays, rhyming activities, and games |
| | 5.6 Uses words to communicate ideas |

| Common Core State Standards | AECE Benchmarks |
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| Speaking and Listening | |
| 1. Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups. (CC.K.SL.1) | 5.2 Uses effective oral communication skills: speaking in complete sentences, speaking with appropriate grammar |
| | 5.6 Uses words to communicate ideas |
| | 5.7 Engages in two-way conversation with children and adults |
| | 5.8 Participates in group discussion |
| | 5.11 Tells a story |
| 1a Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion). (CC.K.SL.1.a) | 1.18 Respects the rights of others |
| | 1.22 Shares, takes turns |
| | 1.23 Follows rules |
| | 3.1 Shows enjoyment of books and stories and discussion of them |
| | 5.7 Engages in two-way conversation with children and adults |
| | 5.8 Participates in group discussion |
| | 5.9 Uses language to problem solve |
| 1b. Continue a conversation through multiple exchanges. (CC.K.SL.1.b) | 5.11 Tells a story |
| | 1.22 Shares, takes turns |
| | 1.23 Follows rules |
| | 5.2 Uses effective oral communication skills: speaking in complete sentences, speaking with appropriate grammar |
| | 5.5 Participates in songs, fingerplays, rhyming activities, and games |
| | 5.6 Uses words to communicate ideas |
| | 5.7 Engages in two-way conversation with children and adults |
| | 5.8 Participates in group discussion |
| | 5.11 Tells a story |

| Common Core State Standards | AECE Benchmarks |
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| 2. Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood. (CC.K.SL.2) | 1.4 Shows curiosity and desire to learn 1.15 Understands and respects differences 2.4 Participates freely in music activities 3.1 Shows enjoyment of books and stories and discussion of them 5.5 Participates in songs, fingerplays, rhyming activities, and games 5.6 Uses words to communicate ideas 5.7 Engages in two-way conversation with children and adults |
| 3. Ask and answer questions in order to seek help, get information, or clarify something that is not understood. (CC.K.SL.3) | 3.1 Shows enjoyment of books and stories and discussion of them 5.2 Uses effective oral communication skills: speaking in complete sentences, speaking with appropriate grammar 5.6 Uses words to communicate ideas 5.7 Engages in two-way conversation with children and adults 5.8 Participates in group discussion 5.9 Uses language to problem solve 5.10 Follows directions in sequence 5.11 Tells a story |
| 4. Describe familiar people, places, things, and events and, with prompting and support, provide additional detail. (CC.K.SL.4) | 2.1 Shows creativity and imagination in play with materials and props 3.42 Shows awareness of technology and tools and their impact on how people live 5.1 Demonstrates phonological awareness (hearing and recognizing the sounds of language) 5.2 Uses effective oral communication skills: speaking in complete sentences, speaking with appropriate grammar 5.6 Uses words to communicate ideas 5.8 Participates in group discussion 5.9 Uses language to problem solve 5.11 Tells a story |

| Common Core State Standards | AECE Benchmarks |
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| 5. Add drawings or other visual displays to descriptions as desired to provide additional detail. (CC.K.SL.5) | 2.1 Shows creativity and imagination in play with materials and props |
| | 2.2 Participates in dramatic play themes that become more involved and complex |
| | 2.3 Assumes various roles in dramatic play situations |
| | 2.4 Participates freely in music activities |
| | 2.5 Enjoys singing games, dramatizing songs and moving to music |
| | 2.6 Expresses through movement what is felt and heard in various musical tempos and styles |
| | 2.7 Experiments with a variety of musical instruments and sound sources |
| | 2.8 Identifies the source of a variety of sounds |
| | 2.9 Moves in time to the beat |
| | 2.10 Explores and manipulates art media |
| | 2.11 Creates drawings and paintings that gradually become more detailed and realistic |
| | 2.12 Preplans art project and then works with care |
| | 2.13 Recognizes and responds to beauty in the environment |
| | 3.1 Shows enjoyment of books and stories and discussion of them |
| | 3.2 Uses picture cues to tell a story |
| | 3.41 Independently applies technology and tools to address a variety of task and problems |
| | 3.44 Demonstrates the safe and cooperative use of technology and tools |
| | 3.6 Demonstrates an interest in using writing for a purpose |
| | 5.4 Recognizes and identifies by name most common objects and pictures |

| Common Core State Standards | AECE Benchmarks |
|---|---|
| 6. Speak audibly and express thoughts, feelings, and ideas clearly. (CC.K.SL.6) | 1.26 Expresses thoughts and feelings in words |
| | 1.29 Expresses strong emotions constructively |
| | 3.1 Shows enjoyment of books and stories and discussion of them |
| | 3.2 Uses picture cues to tell a story |
| | 5.1 Demonstrates phonological awareness (hearing and recognizing the sounds of language) |
| | 5.2 Uses effective oral communication skills: speaking in complete sentences, speaking with appropriate grammar |
| | 5.6 Uses words to communicate ideas |
| | 5.8 Participates in group discussion |
| | 5.9 Uses language to problem solve |
| | 5.11 Tells a story |
| Writing | |
| 1. Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book (e.g., My favorite book is . . .). (CC.K.W.1) | 2.11 Creates drawings and paintings that gradually become more detailed and realistic |
| | 3.5 Understands that print conveys a message |
| | 3.6 Demonstrates an interest in using writing for a purpose |
| | 3.8 Uses known letters or approximation of letters to represent written language |
| | 3.43 Identifies purpose of common technologies and tools |
| | 3.44 Demonstrates the safe and cooperative use of technology and tools |
| 2. Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic. (CC.K.W.2) | 2.11 Creates drawings and paintings that gradually become more detailed and realistic |
| | 3.5 Understands that print conveys a message |
| | 3.6 Demonstrates an interest in using writing for a purpose |
| | 3.7 Identifies letters and signs in the environment |
| | 3.8 Uses known letters or approximation of letters to represent written language |
| | 3.43 Identifies purposes of common technologies and tools |
| | 3.44 Demonstrates the safe and cooperative use of technology and tools |

| Common Core State Standards | AECE Benchmarks |
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| 3. Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened. (CC.K.W.3) | 2.11 Creates drawings and paintings that gradually become more detailed and realistic |
| | 3.2 Uses picture cues to tell a story |
| | 3.5 Understands that print conveys a message |
| | 3.6 Demonstrates an interest in using writing for a purpose |
| | 3.8 Uses known letters or approximation of letters to represent written language |
| | 3.43 Identifies purposes of common technologies and tools |
| 5. With guidance and support from adults, respond to questions and suggestions from peers and add details to strengthen writing as needed. (CC.K.W.5) | 3.44 Demonstrates the safe and cooperative use of technology and tools |
| | 3.1 Shows enjoyment of books and stories and discussion of them |
| | 3.5 Understands that print conveys a message |
| | 3.6 Demonstrates an interest in using writing for a purpose |
| | 3.8 Uses known letters or approximation of letters to represent written language |
| | 5.8 Participates in group discussion |
| 6. With guidance and support from adults, explore a variety of digital tools to produce and publish writing, including in collaboration with peers. (CC.K.W.6) | 5.9 Uses language to problem solve |
| | 1.1 Demonstrates ability to make choices |
| | 2.11 Creates drawings and paintings that gradually become more detailed and realistic |
| | 3.6 Demonstrates an interest in using writing for a purpose |
| | 3.8 Uses known letters or approximation of letters to represent written language |
| | 3.41 Independently applies technology and tools to address a variety of tasks and problems |
| | 3.44 Demonstrates the safe and cooperative use of technology and tools |

| Common Core State Standards | AECE Benchmarks |
|--|--|
| 7. Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them). (CC.K.W.7) | 1.26 Expresses thoughts and feelings in words |
| | 1.29 Expresses strong emotions constructively |
| | 3.1 Shows enjoyment of books and stories and discussion of them |
| | 3.2 Uses picture cues to tell a story |
| | 3.3 Demonstrates knowledge of how to use a book |
| | 3.5 Understands that print conveys a message |
| | 3.6 Demonstrates an interest in using writing for a purpose |
| | 3.7 Identifies letters and signs in the environment |
| | 3.19 Shows interest in exploring the environment |
| | 3.20 Uses senses to learn about the characteristics of the environment and to collect data (scientific process: observing) |
| | 3.21 Uses words to describe the characteristics of objects (scientific process: communicating) |
| | 3.22 Makes comparisons (scientific process: comparing) |
| | 3.41 Independently applies technology and tools to address a variety of tasks and problems |
| | 3.23 Shows awareness of cause-effect relationships |
| 8. With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question. (CC.K.W.8) | 3.1 Shows enjoyment of books and stories and discussion of them |

Continuum of the Arkansas Early Childhood Education Framework Handbook for Three and Four Year Old Children with the Common Core State Standards for Mathematics Kindergarten Level

The previous edition of the AOM had the correlation of the AECE Benchmarks with the student learning expectations in the Arkansas Department of Education English Language Arts Curriculum Frameworks but no other kindergarten student learning expectations were included (ex. mathematics). Since Arkansas adopted both the CCSS Language Arts and Mathematics, it seemed prudent to include the AECE Benchmarks continuum to the kindergarten mathematics standards. In the left column, the AECE Benchmark is provided with the associated Common Core State Standard in the right column.

| AECE Benchmarks | Common Core State Standards | |
|---|-----------------------------|---|
| Benchmark | Strand | Standard |
| 3.10 Classifies objects by physical features such as shape or color | Geometry | <ol style="list-style-type: none"> 1. Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to. (CC.K.G.1) 2. Correctly name shapes regardless of their orientations or overall size. (CC.K.G.2) 3. Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid"). (CC.K.G.3) 4. Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length). (CC.K.G.4) 5. Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes. (CC.K.G.5) 6. Compose simple shapes to form larger shapes. For example, "can you join these two triangles with full sides touching to make a rectangle?" (CC.K.G.6) |
| | Measurements and Data | <ol style="list-style-type: none"> 1. Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. (CC.K.MD.1) 3. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. (Limit category counts to be less than or equal to 10.) (CC.K.MD.3) |
| 3.11 Classifies objects conceptually (things that go together) | Measurements and Data | <ol style="list-style-type: none"> 1. Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. (CC.K.MD.1) 3. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. (Limit category counts to be less than or equal to 10.) (CC.K.MD.3) |
| 3.12 Recognizes patterns and can repeat them (patterning) | Geometry | <ol style="list-style-type: none"> 4. Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length). (CC.K.G.4) 5. Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes. (CC.K.G.5) 6. Compose simple shapes to form larger shapes. For example, "can you join these two triangles with full sides touching to make a rectangle?" (CC.K.G.6) |

| AECE Benchmarks | | Common Core State Standards | |
|--|--------------------------|--|--|
| Benchmark | Strand | Standard | |
| 3.13 Demonstrates one-to-one correspondence | Counting and Cardinality | 1. Count to 100 by ones and by tens. (CC.K.CC.1) 4a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. (CC.K.CC.4.a) 6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies. (Include groups with up to ten objects.) (CC.K.CC.6) | |
| 3.14 Demonstrates the ability to order and sequence | Counting and Cardinality | 1. Count to 100 by ones and by tens. (CC.K.CC.1) 2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1). (CC.K.CC.2) 3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects). (CC.K.CC.3) | |
| 3.15 Demonstrates an understanding of number (how many) and numeral (3 is a numeral) relationship (numeration) | Counting and Cardinality | 1. Count to 100 by ones and by tens. (CC.K.CC.1) 2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1). (CC.K.CC.2) 3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects). (CC.K.CC.3) 4. Understand the relationship between numbers and quantities; connect counting to cardinality. (CC.K.CC.4) 4b. Understand that the last number name said tells the number of objects counted. The number of objects in the same regardless of their arrangement or the order in which they were counted. (CC.K.CC.4.b) 4c. Understand that each successive number name refers to a quantity that is one larger. (CC.K.CC.4.c) 5. Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects. (CC.K.CC.5) 6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies. (Include groups with up to ten objects.) (CC.K.CC.6) 7. Compare two numbers between 1 and 10 presented as written numerals. (CC.K.CC.7) | |

| AECE Benchmarks | | Common Core State Standards | |
|---|------------------------------------|---|--|
| Benchmark | Strand | Standard | |
| 3.16 Demonstrates an understanding of addition and subtraction, using manipulatives | Counting and Cardinality | 4. Understand the relationship between numbers and quantities; connect counting to cardinality. (CC.K.CC.4) 4b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted. (CC.K.CC.4b) 5. Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects. (CC.K.CC.5) 6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies. (Include groups with up to ten objects.) (CC.K.CC.6) | |
| | Numbers and Operations in Base Ten | 1. Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (such as $18 = 10 + 8$); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones. (CC.K.NBT.1) | |
| | Operations and Algebraic Thinking | 1. Represent addition and subtraction with objects, fingers, mental images, drawings (drawings need not show details, but should show the mathematics in the problem), sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations. (CC.K.OA.1) 2. Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem. (CC.K.OA.2) 3. Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., $5 = 2 + 3$ and $5 = 4 + 1$). (CC.K.OA.3) 4. For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation. (CC.K.OA.4) 5. Fluently add and subtract within 5. (CC.K.OA.5) | |
| 3.17 Shows understanding of different relationships of objects in space (spatial relations) | Geometry | 1. Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to. (CC.K.G.1) 5. Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes. (CC.K.G.5) 6. Compose simple shapes to form larger shapes. For example, “can you join these two triangles with full sides touching to make a rectangle?” (CC.K.G.6) | |
| 3.18 Shows an awareness of time concepts | Measurements and Data | 1. Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. (CC.K.MD.1) | |
| 3.19 Shows interest in exploring the environment | Measurements and Data | 1. Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. (CC.K.MD.1) | |

| AECE Benchmarks | | Common Core State Standards | |
|--|--------------------------|--|--|
| Benchmark | Strand | Standard | |
| 3.20 Uses senses to learn about the characteristics of the environment and to collect data (scientific process: observing) | Counting and Cardinality | 6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies. (Include groups with up to ten objects.) (CC.K.CC.6) 7. Compare two numbers between 1 and 10 presented as written numerals. (CC.K.CC.7) | |
| | Geometry | 5. Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes. (CC.K.G.5) 6. Compose simple shapes to form larger shapes. For example, “can you join these two triangles with full sides touching to make a rectangle?” (CC.K.G.6) | |
| | Measurements and Data | 1. Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. (CC.K.MD.1) 2. Directly compare two objects with a measurable attribute in common, to see which object has “more of”/“less of” the attribute, and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter. (CC.K.MD.2) | |
| 3.21 Uses words to describe the characteristics of objects (scientific process: communicating) | Measurement and Data | 1. Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. (CC.K.MD.1) 2. Directly compare two objects with a measurable attribute in common, to see which object has “more of”/“less of” the attribute, and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter. (CC.K.MD.2) | |
| | Geometry | 3. Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”). (CC.K.G.3) | |
| 3.22 Makes comparisons (scientific process: comparing) | Measurement and Data | 1. Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. (CC.K.MD.1) 2. Directly compare two objects with a measurable attribute in common, to see which object has “more of”/“less of” the attribute, and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter. (CC.K.MD.2) | |
| | Geometry | 3. Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”). (CC.K.G.3) 4. Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/“corners”) and other attributes (e.g., having sides of equal length). (CC.K.G.4) | |
| | Counting and Cardinality | 6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies. (Including groups with up to ten objects.) (CC.K.CC.6) 7. Compare two numbers between 1 and 10 presented as written numerals.(CC.K.CC.7) | |

| AECE Benchmarks | | Common Core State Standards | |
|--|------------------------------------|---|--|
| Benchmark | Strand | Standard | |
| 3.24 Finds more than one solution to a problem | Numbers and Operations in Base Ten | 1. Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (such as $18 = 10 + 8$); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones. (CC.K.NBT.1) | |
| | Operational and Algebraic Thinking | 3. Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., $5 = 2 + 3$ and $5 = 4 + 1$). (CC.K.OA.3) 4. For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation. (CC.K.OA.4) | |
| 3.25 Applies information or experience to a new context (scientific process: applying) | Geometry | 5. Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes. (CC.K.G.5) 6. Compose simple shapes to form larger shapes. For example, “can you join these two triangles with full sides touching to make a rectangle?” (CC.K.G.6) | |
| 3.27 Uses numbers in daily activities | Counting and Cardinality | 1. Count to 100 by one and by tens. (CC.K.CC.1) 2. Count forward beginnings from a given number within the known sequence (instead of having to begin at 1). (CC.K.CC.2) 3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects.) (CC.K.CC.3) 4. Understand the relationship between numbers and quantities; connect counting to cardinality. (CC.K.CC.4) 4a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. (CC.K.CC.4.a) 4c. Understand that each successive number name refers to a quantity that is one larger. (CC.K.CC.4.c) 6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., using matching and counting strategies. (Include groups with up to ten objects.) (CC.K.CC.6) 7. Compare two numbers between 1 and 10 presented as written numerals. (CC.K.CC.7) | |
| 3.28 Describe the characteristics of both two-dimensional shapes and geometric solids | Geometry | 3. Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”). (CC.K.G.3) 4. Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/“corners”) and other attributes (e.g., having sides of equal length). (CC.K.G.4) | |

| AECE Benchmarks | | Common Core State Standards | |
|---|----------------------|-----------------------------|---|
| Benchmark | Strand | Standard | |
| 3.29 Manipulates and combines two-dimensional shapes | Geometry | 5. | Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes. (CC.K.G.5) |
| | | 6. | Compose simple shapes to form larger shapes. For example, “can you join these two triangles with full sides touching to make a rectangle?” (CC.K.G.6) |
| 3.30 Participates in exploratory measurement activities | Measurement and Data | 1. | Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. (CC.K.MD.1) |
| | | 2. | Directly compare two objects with a measurable attribute in common, to see which object has “more of”/“less of” the attribute, and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter. (CC.K.MD.2) |
| | | 3. | Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. (Limit category counts to be less than or equal to 10.) (CC.K.MD.3) |

Continuum in Reverse Order: Common Core State Standards for Mathematics Kindergarten Level with the Arkansas Early Childhood Education Framework Handbook for Three and Four Year Old Children

| Common Core State Standards | AECE Benchmark |
|---|--|
| Counting and Cardinality | |
| 1. Count to 100 by ones and by tens (CC.K.CC.1) | 3.13 Demonstrates one-to-one correspondence |
| | 3.14 Demonstrates the ability to order and sequence |
| | 3.15 Demonstrates an understanding of number (how many) and numeral (3 is a numeral) relationship (numeration) |
| | 3.27 Uses numbers in daily activities |
| 2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1). (CC.K.CC.2) | 3.14 Demonstrates the ability to order and sequence |
| | 3.15 Demonstrates an understanding of number (how many) and numeral (3 is a numeral) relationship (numeration) |
| | 3.27 Uses numbers in daily activities |
| 3. Write numbers from 0-20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects). (CC.K.CC.3) | 3.14 Demonstrates the ability to order and sequence |
| | 3.15 Demonstrates an understanding of number (how many) and numeral (3 is a numeral) relationship (numeration) |
| | 3.27 Uses numbers in daily activities |
| 4. Understand the relationship between numbers and quantities; connect counting to cardinality. (CC.K.CC.4) | 3.15 Demonstrates an understanding of number (how many) and numeral (3 is a numeral) relationship (numeration) |
| | 3.16 Demonstrates an understanding of addition and subtraction, using manipulatives |
| | 3.27 Uses numbers in daily activities |
| 4a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. (CC.K.CC.4.a) | 3.13 Demonstrates one-to-one correspondence |
| | 3.27 Uses numbers in daily activities |
| 4b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted. (CC.K.CC.4.b) | 3.15 Demonstrates an understanding of number (how many) and numeral (3 is a numeral) relationship (numeration) |
| | 3.16 Demonstrates an understanding of addition and subtraction, using manipulatives |
| 4c. Understand that each successive number name refers to a quantity that is one larger. (CC.K.CC.4.c) | 3.15 Demonstrates an understanding of number (how many) and numeral (3 is a numeral) relationship (numeration) |
| | 3.27 Uses numbers in daily activities |

| Common Core State Standards | AECE Benchmark |
|---|---|
| 5. Count to answer 'how many?' questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects. (CC.K.CC.5) | 3.15 Demonstrates an understanding of number (how many) and numeral (3 is a numeral) relationship (numeration) 3.16 Demonstrates an understanding of addition and subtraction, using manipulatives |
| 6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies. (Include groups with up to ten objects.). (CC.K.CC.6) | 3.13 Demonstrates one-to-one correspondence 3.15 Demonstrates an understanding of number (how many) and numeral (3 is a numeral) relationship (numeration) 3.16 Demonstrates an understanding of addition and subtraction, using manipulatives 3.20 Uses senses to learn about the characteristics of the environment and to collect data (scientific process: observing) 3.22 Makes comparisons (scientific process: comparing) 3.27 Uses numbers in daily activities |
| 7. Compare two numbers between 1 and 10 presented as written numerals. (CC.K.CC.7) | 3.15 Demonstrates an understanding of number (how many) and numeral (3 is a numeral) relationship (numeration) 3.20 Uses senses to learn about the characteristics of the environment and to collect data (scientific process: observing) 3.22 Makes comparisons (scientific process: comparing) 3.27 Uses numbers in daily activities |
| Operations and Algebraic Thinking | |
| 1. Represent addition and subtraction with objects, fingers, mental images, drawings (drawings need not show details, but should show the mathematics in the problem), sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations. (CC.K.OA.1) | 3.16 Demonstrates an understanding of addition and subtraction, using manipulatives |
| 2. Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem. (CC.K.OA.2) | 3.16 Demonstrates an understanding of addition and subtraction, using manipulatives |
| 3. Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., $5=2+3$ and $5=4+1$). (CC.K.OA.3) | 3.16 Demonstrates an understanding of addition and subtraction, using manipulatives 3.24 Finds more than one solution to a problem |
| 4. For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation. (CC.K.OA.4) | 3.16 Demonstrates an understanding of addition and subtraction, using manipulatives 3.24 Finds more than one solution to a problem |
| 5. Fluently add and subtract within 5. (CC.K.OA.5.) | 3.16 Demonstrates an understanding of addition and subtraction, using manipulatives |

| Common Core State Standards | AECE Benchmark |
|---|--|
| Number and Operations in Base Ten | |
| 1. Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (such as $18=10+8$); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones. (CC.K.NBT.1) | 3.16 Demonstrates an understanding of addition and subtraction, using manipulatives |
| | 3.24 Finds more than one solution to a problem |
| Measurement and Data | |
| 1. Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. (CC.K.MD.1) | 3.10 Classifies objects by physical features such as shape or color |
| | 3.11 Classifies objects conceptually (things that go together) |
| | 3.18 Shows an awareness of time concepts |
| | 3.19 Shows interest in exploring the environment |
| | 3.20 Uses senses to learn about the characteristics of the environment and to collect data (scientific process: observing) |
| | 3.21 Uses words to describe the characteristics of objects (scientific process: communicating) |
| | 3.22 Makes comparisons (scientific process: comparing) |
| 2. Directly compare two objects with a measurable attribute in common, to see which object has 'more of/less of' the attribute, and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter. (CC.K.MD.2) | 3.30 Participates in exploratory measurement activities |
| | |
| 3. Classify objects and count the number of objects in each category. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. (Limit category counts to be less than or equal to 10.). (CC.K.MD.3) | 3.20 Uses senses to learn about the characteristics of the environment and to collect data (scientific process: observing) |
| | 3.21 Uses words to describe the characteristics of objects (scientific process: communicating) |
| | 3.22 Makes comparisons (scientific process: comparing) |
| | 3.30 Participates in exploratory measurement activities |
| Geometry | |
| 1. Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to. (CC.K.G.1) | 3.10 Classifies objects by physical features such as shape or color |
| | 3.17 Shows understanding of different relationships of objects in space (spatial relations) |
| 2. Correctly name shapes regardless of their orientations or overall size.(CC.K.G.2) | 3.10 Classifies objects by physical features such as shape or color |

| Common Core State Standards | AECE Benchmark |
|---|---|
| 3. Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid"). (CC.K.G.3) | 3.10 Classifies objects by physical features such as shape or color 3.22 Makes comparisons (scientific process: comparing) 3.28 Describe the characteristics of both two-dimensional shapes and geometric solids |
| 4. Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/'corner') and other attributes (e.g., having sides of equal length). (CC.K.G.4) | 3.10 Classifies objects by physical features such as shape or color 3.12 Recognizes patterns and can repeat them (patterning) 3.28 Describe the characteristics of both two-dimensional shapes and geometric solids |
| 5. Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes. (CC.K.G.5) | 3.10 Classifies objects by physical features such as shape or color 3.12 Recognizes patterns and can repeat them (patterning) 3.17 Shows understanding of different relationships of objects in space (spatial relations) 3.20 Uses senses to learn about the characteristics of the environment and to collect data (scientific process: observing) 3.25 Applies information or experience to a new context (scientific process: applying) 3.29 Manipulates and combines two-dimensional shapes |
| 6. Compose simple shapes to form larger shapes. For example, "can you join these two triangles with full sides touching to make a rectangle?". (CC.K.G.6) | 3.10 Classifies objects by physical features such as shape or color 3.12 Recognizes patterns and can repeat them (patterning) 3.17 Shows understanding of different relationships of objects in space (spatial relations) 3.20 Uses senses to learn about the characteristics of the environment and to collect data (scientific process: observing) 3.25 Applies information or experience to a new context (scientific process: applying) 3.29 Manipulates and combines two-dimensional shapes |

Correlation of the Arkansas Early Childhood Education Framework Handbook for Three and Four Year Old Children with the Work Sampling System Developmental Guidelines for Preschool 4

The Work Sampling System® is a criterion-referenced observational assessment with extensive research supporting reliability and validity. This assessment is used in Arkansas primarily by Arkansas Better Chance Programs but is also used by some Head Start Programs. The tool is used to help observe, record, and evaluate each child's progress using a systematic method.

The chart below identifies the AECA Benchmark in the left column which correlates with the appropriate Work Sampling Domain, Component and Performance indicator in the right columns.

| Arkansas Early Childhood Education Benchmark | Work Sampling System: Developmental Guidelines for Preschool 4 (4 th edition) | | |
|--|--|---|---|
| Benchmark | Domain | Component | Performance Indicator |
| <i>Learning Strand: Social/Emotional Development</i> | | | |
| Acts Independently | | | |
| 1.1 Demonstrates ability to make choices | I. Personal & Social Development | A. Self-concept | 2. Shows some self-direction. |
| 1.2 Demonstrates independence in personal care | VII. Physical Development & Health | C. Personal health and safety | 1. Performs some self-care tasks independently. |
| 1.3 Demonstrates ability to play independently | I. Personal & Social Development | A. Self-concept | 2. Shows some self-direction. |
| Experience Success | | | |
| 1.4 Shows curiosity and desire to learn | I. Personal & Social Development | C. Approaches to learning | 1. Shows eagerness and curiosity as a learner. |
| 1.5 Enjoys experimenting and problem-solving with ideas as well as with concrete materials | I. Personal & Social Development | C. Approaches to learning | 3. Approaches tasks with flexibility and inventiveness. |
| 1.6 Demonstrates confidence in growing abilities | I. Personal & Social Development | A. Self-concept | 1. Demonstrates self-confidence. |
| 1.7 Demonstrates willingness to try new things | I. Personal & Social Development | A. Self-concept C. Approaches to learning | 2. Shows some self-direction. 3. Approaches tasks with flexibility. |
| 1.8 Uses planning in approaching a task or activity | I. Personal & Social Development | A. Self-concept C. Approaches to learning | 2. Shows some self-direction. 3. Approaches tasks with flexibility and inventiveness. |
| 1.9 Shows persistence in approaching tasks | I. Personal & Social Development | C. Approaches to learning | 2. Attends to tasks and seeks help when encountering a problem. 3. Approaches task with flexibility. |
| Interact Socially | | | |
| 1.10 Trust adults for help and comfort | I. Personal & Social Development | D. Interaction with others E. Social problem-solving | 2. Interacts easily with familiar adults. 1. Seeks adult help when needed to resolve conflicts. |
| 1.11 Shows ability to separate from parents | I. Personal & Social Development | B. Self-control | 3. Manages transitions. |
| 1.12 Demonstrates interest and participates in classroom activities | I. Personal & Social Development | A. Self-concept | 1. Demonstrates self-confidence. |

| Arkansas Early Childhood Education Benchmark | Work Sampling System: Developmental Guidelines for Preschool 4 (4 th edition) | | |
|---|---|---|--|
| Benchmark | Domain | Component | Performance Indicator |
| 1.13 Participates in routine activities easily | I. Personal & Social Development | B. Self-control | 1. Follows simple classroom rules and routines. 3. Manages transitions. |
| 1.14 Socializes with adults and children | I. Personal & Social Development | D. Interaction with others | 1. Interacts easily with one or more children. 2. Interacts easily with familiar adults. |
| 1.15 Understands and respects differences | V. Social Studies | A. People, past and present | 1. Identifies similarities and differences in personal and family characteristics. |
| 1.16 Helps others in need | I. Personal & Social Development | D. Interaction with others | 4. Shows empathy and caring for others. |
| 1.17 Stands up for rights | I. Personal & Social Development | E. Social problem-solving A. Self-concept | 1. Seeks adult help when needed to resolve conflicts. 1. Demonstrates self-confidence. |
| 1.18 Respects the rights of others | I. Personal & Social Development | D. Interaction with others | 1. Interacts easily with one or more children. |
| 1.19 Works cooperatively with others | I. Personal & Social Development | C. Approaches to learning D. Interaction with others | 2. Attends to tasks and seeks help when encountering a problem. 1. Interacts easily with one or more children. 3. Participates in group life of the class. |
| 1.20 Uses compromise and discussion to resolve conflicts | I. Personal & Social Development | E. Social problem-solving | 1. Seeks adult help when needed to resolve conflicts. |
| 1.21 Becomes involved in solving social problems (conflicts) | I. Personal & Social Development | E. Social problem-solving | 1. Seeks adult help when needed to resolve conflicts. |
| Emotional Literacy | | | |
| 1.22 Shares, takes turns | I. Personal and Social Development | D. Interaction with others | 1. Interacts easily with one or more children. 4. Shows empathy and caring for others. |
| 1.23 Follows rules | I. Personal & Social Development V. Social Studies VII. Physical Development and Health | B. Self control C. Citizenship and government C. Personal health and safety | 1. Follows simple classroom rules and routines. 1. Demonstrates awareness of rules. 2. Follows basic health and safety rules. |
| 1.24 Expresses care and concern for others | I. Personal and Social Development | D. Interaction with others | 4. Shows empathy and caring for others. |
| 1.25 Identifies one's own feelings | I. Personal & Social Development | A. Self-concept | 1. Demonstrates self confidence. |
| 1.26 Expresses thoughts and feelings in words | II. Language & Literacy | B. Speaking | 2. Uses expanded vocabulary and language for a variety of purposes. |
| 1.27 Identifies and understands others' emotions and intentions | I. Personal & Social Development | D. Interaction with others | 4. Shows empathy and caring for others. |
| Emotional Regulation | | | |
| 1.28 Seeks support from others when needs assistance | I. Personal & Social Development | C. Approaches to learning | 3. Approaches tasks with flexibility and inventiveness. |

| Arkansas Early Childhood Education Benchmark | | Work Sampling System: Developmental Guidelines for Preschool 4 (4 th edition) | |
|--|--|--|--|
| Benchmark | Domain | Component | Performance Indicator |
| 1.29 Expresses strong emotions constructively | II. Language & Literacy | B. Speaking | 2. Uses expanded vocabulary and language for a variety of purposes. |
| 1.30 Pays attention | II. Language & Literacy | A. Listening | 1. Gains meaning by listening. |
| 1.31 Accepts consequences | | | |
| 1.32 Practices new skill | I. Personal & Social Development | C. Approaches to learning | 3. Approaches tasks with flexibility and inventiveness. |
| 1.33 Delays gratification | | | |
| Learning Strand: Creative/Aesthetic Learning | | | |
| Expression Through Art Forms and Activities | | | |
| 2.1 Shows creativity and imagination in play with materials and props | I. Personal & Social Development II. Language & Literacy V. The Arts | C. Approaches to learning D. Writing A. Expression and representation | 3. Approaches tasks with flexibility and inventiveness. 1. Represents ideas and stories through pictures, dictation and play. 3. Uses a variety of art materials for tactile experience and exploration. |
| 2.2 Participate in dramatic play themes that become more involved and complex | VI. The Arts I. Personal & Social Development | A. Expression and representation A. Approaches to learning | 2. Participates in creative movement, dance and drama. 3. Approaches tasks with flexibility and inventiveness. |
| 2.3 Assumes various roles in dramatic play situations | VI. The Arts I. Personal and Social Development | A. Expression and representation A. Self-concept | 2. Participates in creative movement, dance and drama. 1. Demonstrates self-confidence. |
| 2.4 Participates freely in music activities | VI. The Arts | A. Expression and representation | 1. Participates in group music experiences. |
| 2.5 Enjoys singing games, dramatizing songs and moving to music | VI. The Arts | A. Expression and representation | 1. Participates in group music experiences. 2. Participates in creative movement, dance and drama. |
| 2.6 Express through movement what is felt and heard in various musical tempos and styles | VI. The Arts | A. Expression and representation | 2. Participates in creative movement, dance and drama. |
| 2.7 Experiments with a variety of musical instruments and sound sources | VI. The Arts IV. Scientific Thinking I. Personal Social | A. Expression and representation A. Inquiry C. Approaches to learning | 1. Participates in group music experiences. 1. Asks questions, uses senses to observe. 3. Approaches play/tasks with purpose and flexibility. |
| 2.8 Identifies the source of a variety of sounds | IV. Scientific thinking | A. Inquiry | 1. Asks questions, uses senses to observe and explore materials and natural phenomena. |

| Arkansas Early Childhood Education Benchmark | Work Sampling System: Developmental Guidelines for Preschool 4 (4 th edition) | | |
|---|--|--|--|
| Benchmark | Domain | Component | Performance Indicator |
| 2.9 Moves in time to the beat | VI. The Arts | A. Expression and representation | 1. Participates in group music experiences. 2. Participates in creative movement, dance and drama. |
| 2.10 Explores and manipulates art media | VI. The Arts VII. Physical Development & Health | A. Expression and representation B. Fine motor development | 3. Uses a variety of art materials for tactile experience and exploration. 3. Shows beginning control of writing, drawing and art tools. |
| 2.11 Creates drawings and paintings that gradually become more detailed and realistic | II. Language & Literacy VI. The Arts | D. Writing A. Expression and representations | 1. Represents ideas and stories through pictures, dictation and play. 3. Uses a variety of art materials. |
| 2.12 Preplans art project and then works with care | VI. The Arts | A. Expression and representation | 3. Uses a variety of art materials for tactile experience and exploration. |
| 2.13 Recognizes and responds to beauty in the environment | VI. The Arts | D. People and where they live B. Understanding and appreciation | 2. Shows awareness of the environment. 1. Responds to artistic creation or events. |
| Learning Strand: Cognitive/Intellectual Learning | | | |
| Language Arts | | | |
| 3.1 Shows enjoyment of books and stories and discussion of them | II. Language & Literacy | C. Reading | 1. Shows appreciation for books and reading. |
| 3.2 Uses picture cues to tell a story | II. Language & Literacy | C. Reading | 4. Comprehends and responds to stories read aloud. |
| 3.3 Demonstrates knowledge of how to use a book | II. Language & Literacy | C. Reading | 2. Shows beginning understanding of concepts about print. |
| 3.4 Demonstrates visual discrimination and visual memory skills | II. Language & Literacy | C. Reading | 3. Begins to develop knowledge about letters. |
| 3.5 Understands that print conveys a message | II. Language & Literacy | C. Reading D. Writing | 2. Shows beginning understanding of concepts about print. 4. Comprehends and responds to stories read aloud. 1. Represents ideas and stories through pictures, dictation, and play. 2. Uses letter-like shapes, symbols and letters, to convey meaning. 3. Understand purpose for writing. |

| Arkansas Early Childhood Education Benchmark | | Work Sampling System: Developmental Guidelines for Preschool 4 (4 th edition) | | |
|--|---|--|---|--|
| Benchmark | | Domain | Component | Performance Indicator |
| 3.6 | Demonstrates an interest in using writing for a purpose | II. Language & Literacy | D. Writing | 1. Represents ideas and stories through pictures, dictation and play. 3. Understands purposes of writing. |
| 3.7 | Identifies letters and signs in the environment | II. Language & Literacy | C. Reading | 3. Begins to develop knowledge about letters. 2. Shows beginning understanding of concepts of print. |
| 3.8 | Uses known letters or approximation of letters to represent written language | II. Language & Literacy | C. Reading D. Writing | 2. Shows beginning understanding of concepts about print. 2. Uses letter like-shapes, symbols, and letters to convey meaning. |
| 3.9 | Identifies some letters and makes some letter-sounds matches | II. Language & Literacy | C. Reading | 3. Begins to develop knowledge of letters. |
| Mathematics and Science | | | | |
| 3.10 | Classifies objects by physical features such as Shape or color | III. Mathematical Thinking | C. Patterns, relationships and functions D. Geometry and spatial relations | 1. Sorts objects into subgroups that vary by one or two attributes. 1. Begins to recognize and describe the attributes of shapes. |
| 3.11 | Classifies objects conceptually (things that go together) | III. Mathematical Thinking | C. Patterns, relationship, and functions | 1. Sorts objects into sub-groups that vary by one or two attributes. |
| 3.12 | Recognizes patterns and can repeat them (patterning) | III. Mathematical Thinking | C. Patterns, relationships and functions | 2. Recognizes simple patterns and duplicates them. |
| 3.13 | Demonstrates one-to-one correspondence | III. Mathematical Thinking | B. Number and operations | 1. Shows beginning understanding of number and quantity. |
| 3.14 | Demonstrates the ability to order and sequence | III. Mathematical Thinking | C. Patterns, relationships and functions | 2. Recognizes simple patterns and duplicates them. 1. Orders, compares and described objects according to single attribute. |
| 3.15 | Demonstrates an understanding of number (how many) and numeral (3 is a numeral) relationship (numeration) | III. Mathematical Thinking | B. Number and operations | 1. Shows beginning understanding of number and quantity. |
| 3.16 | Demonstrates an understanding of addition and subtraction, using manipulatives | III. Mathematical Thinking | A. Mathematical processes B. Number and operations | 1. Begins to use simple strategies to solve mathematical problems. 1. Shows beginning understanding of number and quantity. |
| 3.17 | Shows understanding of different relationships of object in space (spatial relations) | III. Mathematical Thinking | D. Geometry and spatial relations | 2. Shows understanding of and uses several position words. |

| Arkansas Early Childhood Education Benchmark | Work Sampling System: Developmental Guidelines for Preschool 4 (4 th edition) | | |
|---|--|--|---|
| Benchmark | Domain | Component | Performance Indicator |
| 3.18 Shows an awareness of time concepts | III. Mathematical Thinking | E. Measurement | 2. Participates in measuring activities. |
| 3.19 Shows interest in exploring the environment. | V. Social Studies I. Personal and Social IV. Science | D. People and where they live C. Approaches to learning A. Inquiry | 2. Shows awareness of the environment. 1. Shows eagerness and curiosity as a learner. 1. Asks questions and uses senses to explore materials and natural phenomena. |
| 3.20 Uses senses to learn about the characteristics of the environment, and to collect data (specific process: observing) | IV. Scientific Thinking | A. Inquiry | 1. Asks questions and uses senses to observe and explore materials and natural phenomena. 2. Uses simple tools and equipment for investigation. |
| 3.21 Uses words to describe the characteristics of objects (scientific process: communicating) | II. Language & Literacy | B. Speaking | 2. Uses expanded vocabulary and language for a variety of purposes. |
| 3.22 Makes comparisons (scientific process: comparing) | IV. Scientific Thinking | A. Inquiry | 3. Makes comparisons among objects. |
| 3.23 Shows awareness of cause-effect relationships | IV. Scientific Thinking | A. Inquiry | 1. Asks questions and uses senses to observe and explore materials and natural phenomena. |
| 3.24 Finds more than one solution to a problem | IV. Scientific Thinking I. Personal & Social | A. Inquiry C. Approaches to learning | 1. Asks questions and uses senses to observe and explore materials and natural phenomena. 3. Approaches tasks with flexibility and inventiveness. |
| 3.25 Applies information or experience to a new context (scientific process: applying) | I. Personal & Social | C. Approaches to learning | 3. Approaches tasks with flexibility and inventiveness. |
| 3.26 Discusses natural events in the environment | IV. Scientific Thinking | A. Inquiry | 1. Asks questions and uses senses to observe and explore materials and natural phenomena. |
| 3.27 Uses numbers in daily activities | III. Mathematical Thinking | A. Mathematical processes B. Number and operations | 1. Begins to use simple strategies to solve mathematical problems. 1. Shows beginning understanding of number and quantity. |
| 3.28 Describes the characteristics of both two-dimensional shapes and geometric solids | III. Mathematical Thinking | D. Geometry and spatial relations | 1. Begins to recognize and describe the attributes of shapes |
| 3.29 Manipulates and combines two-dimensional shapes | III. Mathematical Thinking | D. Geometry and spatial relations | 2. Shows understanding of and uses several positional words. |
| 3.30 Participants in exploratory measurement activities | III. Mathematical Thinking | E. Measurement | 2. Participates in measuring activities. |

| Arkansas Early Childhood Education Benchmark | | Work Sampling System: Developmental Guidelines for Preschool 4 (4 th edition) | |
|---|---|--|--|
| Benchmark | Domain | Component | Performance Indicator |
| Social Studies | | | |
| 3.31 Identifies self as a boy or girl | V. Social Studies | A. People, past and present | 1. Identifies similarities and differences in personal and family characteristics. |
| 3.32 Identifies self as a member of a specific family and cultural group | V. Social Studies | A. People, past and present | 1. Identifies similarities and differences in personal and family characteristics. |
| 3.33 Shows pride in heritage and background | V. Social Studies | A. People, past and present | 1. Identifies similarities and differences in personal and family characteristics. |
| 3.34 Shows awareness of the roles people play in society | V. Social Studies | B. Human interdependence C. Citizenship and government | 1. Begins to understand family needs, roles and relationships. 2. Describes some people's jobs and what is required to perform them. 2. Shows awareness of what it means to be a leader. |
| 3.35 Functions as a member of the classroom community | I. Personal & Social Development V. Social Studies | D. Interaction with others C. Citizenship and government | 3. Participates in the group life of the class. 1. Demonstrates awareness of rules. |
| 3.36 Shows awareness of safe behavior | VII. Physical Development & Health V. Social Studies | C. Personal health and safety C. Citizenship and government | 2. Follows basic health and safety rules. 1. Demonstrates awareness of rules. |
| 3.37 Cares for the environment | V. Social Studies I. Personal & Social Development | D. People and where they live B. Self control | 2. Shows awareness of the environment. 2. Uses classroom materials carefully. |
| Technology and the World | | | |
| 3.41 Independently applies technology and tools to address a variety of tasks and problems | IV. Scientific Thinking | B. Inquiry | 2. Uses simple tools and equipment for investigation. |
| 3.42 Shows awareness of technology and tools and their impact on how people live | V. Social Studies | B. Human interdependence | 3. Begins to be aware of technology and how it affects life. |
| 3.43 Identifies purposes of common technologies | V. Social Studies | B. Human interdependence | 3. Begins to be aware of technology and how it affects life. |
| 3.44 Demonstrates the safe and cooperative use of technology and tools | IV. Scientific Thinking | A. Inquiry | 2. Uses simple tools and equipment for investigation. |
| 3.45 Communicates about technology and tools using developmentally appropriate and accurate terminology | II. Language and Literacy | B. Speaking | 2. Uses expanded vocabulary and language for a variety of purposes. |
| Learning Strand: Physical Development | | | |
| Health and Nutrition | | | |
| 4.1 Identifies body parts and understands their functions | V. Social Studies | A. People, past and present | 1. Identifies similarities and differences in personal and family characteristics. |

| Arkansas Early Childhood Education Benchmark | | Work Sampling System: Developmental Guidelines for Preschool 4 (4 th edition) | | |
|--|---|--|--|--|
| Benchmark | | Domain | Component | Performance Indicator |
| 4.2 | Demonstrates health and personal care habits | VII. Physical Development & Health | C. Personal health and safety | 1. Performs some self-care tasks independently. |
| 4.3 | Tries new foods before deciding whether he/she likes them | VII. Physical Development & Health I. Personal & Social Development | C. Personal health and safety C. Approaches to learning | 2. Follows basic health and safety rules. 1. Shows eagerness and curiosity as a learner. |
| 4.4 | Recognizes different types of food | II. Language & Literacy IV. Science | B. Speaking A. Inquiry | 2. Uses expanded vocabulary and language for a variety of purposes. 1. Asks questions and uses senses to observe and explore materials and natural phenomena. |
| 4.5 | Shows awareness that some foods are better for your body than others | VII. Physical Development & Health | C. Personal health and safety | 2. Follows basic health and safety rules. |
| Fine Motor | | | | |
| 4.6 | Coordinate eye and hand movements to complete tasks | VII. Physical Development & Health | B. Fine motor development | 2. Uses eye-hand coordination to perform tasks. |
| 4.7 | Uses small muscles for self-help skills | VII. Physical Development & Health | B. Fine motor development C. Personal health and safety | 1. Uses strength and control to perform simple tasks. 2. Uses eye-hand coordination to perform tasks. 1. Performs some self-care tasks independently. |
| 4.8 | Uses writing and drawing tools with control and intention | VII. Physical Development & Health | B. Fine motor development | 3. Shows beginning control of writing, drawing and art tools. |
| Gross Motor | | | | |
| 4.9 | Freely participates in gross motor activities | VII. Physical Development & Health | A. Gross motor development | 1. Moves with balance and control. 2. Coordinates movements to perform simple tasks. |
| 4.10 | Throws, kicks, bounces and catches | VII. Physical Development & Health | A. Gross motor development | 2. Coordinates movements to perform simple tasks. |
| 4.11 | Runs, jumps, hops and skips | VII. Physical Development & Health | A. Gross motor development | 1. Moves with balance and control. |
| 4.12 | Shows balance and coordination | VII. Physical Development & Health | A. Gross motor development | 1. Moves with balance and control. 2. Coordinates movements to perform simple tasks. |
| 4.13 | Climbs up and down equipment | VII. Physical Development & Health | A. Gross motor development | |
| Learning Strand: Language | | | | |
| Language | | | | |
| 5.1 | Demonstrates phonological awareness | II. Language and Literacy | A. Listening | 3. Demonstrates phonological awareness. |
| 5.2 | Uses effective oral communication skills: speaking in complete sentences, speaking with appropriate grammar | II. Language & Literacy | B. Speaking | 1. Speaks clearly enough to be understood without contextual clues. |

| Arkansas Early Childhood Education Benchmark | | Work Sampling System: Developmental Guidelines for Preschool 4 (4 th edition) | | |
|--|--|--|--|---|
| Benchmark | | Domain | Component | Performance Indicator |
| 5.3 | Expands vocabulary | II. Language & Literacy | B. Speaking | 2. Uses expanded vocabulary and language for a variety of purposes. |
| 5.4 | Recognizes and identifies by name most common objects and pictures | II. Language & Literacy | B. Speaking | 2. Uses expanded vocabulary and language for a variety of purposes. |
| 5.5 | Participates in songs, fingerplays, rhyming activities and games | II. Language & Literacy | A. Listening | 3. Demonstrates phonological awareness. |
| 5.6 | Uses words to communicate ideas | II. Language & Literacy | A. Listening B. Speaking | 1. Gains meaning by listening. 2. Uses expanded vocabulary and language for a variety of purposes. |
| 5.7 | Engages in two-way conversation with children and adults | II. Language & Literacy I. Personal & Social Development | A. Listening D. Interaction with others | 1. Gains meaning by listening. 1. Interacts easily with one or more children. 2. Interacts easily with familiar adults. |
| 5.8 | Participates in group discussion | II. Language & Literacy I. Personal and Social Development | A. Listening C. Approaches to learning | 1. Gains meaning by listening. 1. Shows eagerness and curiosity as a learner. |
| 5.9 | Uses language to problem solve | I. Personal & Social Development | E. Social problem-solving | 1. Seeks adult help when needed to resolve conflicts. |
| 5.10 | Follows directions in sequence | II. Language & Literacy | A. Listening | 2. Follows two- or three-step directions. |
| 5.11 | Tells a story | II. Language & Literacy | B. Speaking | 2. Uses expanded vocabulary and language for a variety of purposes. |

Continuum of the Arkansas Framework for Infant and Toddler Care with the Arkansas Early Childhood Education (AECE) Framework Handbook for Three and Four Year Old Children

The Arkansas Framework for Infant and Toddler Care was designed as a guide to assist caregivers in any setting that provides care. As the Arkansas Framework for Infant and Toddler Care was being developed consideration was given as to how it would connect to the benchmarks in the AECE Framework Handbook. A careful examination of both documents indicated that they do connect. The two frameworks create a continuum for development and learning for children from birth to kindergarten that bridges to the Common Core State Standards (Kindergarten Level). The chart below has the Infant Toddler Benchmarks in the left column and the AECE Benchmarks in the right column.

| Infant and Toddler Benchmarks | AECE Benchmarks |
|--|--|
| <i>YOUNG INFANTS, MOBILE INFANTS, TODDLERS</i> | |
| DEVELOPMENTAL STRAND 1: To learn about themselves — Self-concept development | |
| 1.1 Feels valued and attached to others | 1.10 Demonstrates trust in adults 1.28 Seeks support from others when needs assistance |
| 1.2 Becomes aware of self as a unique individual | 3.31 Identifies self as a boy or girl 3.32 Identifies self as a member of a specific family and cultural group |
| 1.3 Demonstrates increasing sense of competence and confidence in growing abilities | 1.6 Demonstrates confidence in growing abilities 1.25 Identifies one's own feelings |
| 1.4 Asserts independence | 1.3 Demonstrates ability to play independently |
| DEVELOPMENTAL STRAND 2: To learn about their feelings — Emotional Development | |
| 2.1 Displays a wide range of feelings and emotions | 1.26 Expresses thoughts and feelings in words 1.29 Expresses strong emotions constructively |
| 2.2 Expresses feelings and emotions through gestures, sounds, and—eventually—words | 1.25 Identifies one's own feelings 1.26 Expresses strong emotions constructively 1.27 Identifies and understands others' emotions and intentions 5.6 Uses words to communicate ideas and feelings |
| DEVELOPMENTAL STRAND 3: To learn about other people — Social development | |
| 3.1 Develops trusting relationships with nurturing adults | 1.10 Demonstrates trust in adults 1.28 Seeks support from others when needs assistance |
| 3.2 Shows interest in peers | 1.14 Seeks out adults and children 1.24 Expresses care and concern for others 1.28 Seeks support from others when needs assistance |

| Infant and Toddler Benchmarks | AECE Benchmarks |
|---|--|
| 3.3 Demonstrates caring and cooperation | 1.16 Helps others in need 1.18 Shares; respects the rights of others 1.24 Expresses care and concern for others 1.27 Identifies and understands others' emotions and intentions 1.33 Delays gratification |
| 3.4 Tries out roles and relationships through imitation and pretend play | 2.2 Participates in dramatic play themes that become more involved and complex 2.3 Assumes various roles in dramatic play situations 3.34 Shows awareness of the roles people play in society |
| DEVELOPMENTAL STRAND 4: To learn to communicate — Language Development | |
| 4.1 Expresses needs and thoughts without using words | |
| 4.2 Identifies with a home language | 3.32 Identifies self as a member of a specific family and cultural group |
| 4.3 Responds to verbal and non-verbal communication | 1.23 Follows rules 1.26 Expresses thoughts and feelings in words 1.27 Identifies and understand others' emotions and intentions 1.29 Expresses strong emotions constructively 1.33 Delays gratification 5.6 Uses words to communicate ideas and feelings 5.7 Engages in two-way conversation with children and adults 5.10 Follows directions in sequence |

| Infant and Toddler Benchmarks | AECE Benchmarks |
|---|---|
| 4.4 Communicates through language | 1.22 Shares, takes turns |
| | 5.1 Demonstrates phonological awareness (hearing and recognizing the sounds of language) |
| | 5.2 Uses effective oral communication skills: speaking in complete sentences, speaking with appropriate grammar |
| | 5.3 Expands vocabulary |
| | 5.4 Recognizes and identifies by name most common objects and pictures |
| | 5.5 Participates in songs, fingerplays, rhyming activities, and games |
| | 5.6 Uses words to communicate ideas and feelings |
| | 5.7 Engages in two-way conversation with children and adults |
| | 5.8 Participates in group discussion |
| 4.5 Shows enjoyment of books and stories | 5.9 Uses language to problem solve |
| | 3.1 Shows enjoyment of books and stories and discussion of them |
| | 3.2 Tells a story in sequence, following the pictures in a book |
| | 3.3 Demonstrates knowledge of how to use a book |
| | 3.5 Understands that print conveys a message |
| | 3.4 Independently applies technology and tools to address a variety of tasks and problems |
| | 3.43 Identifies purpose of common technologies and tools |
| DEVELOPMENTAL STRAND 5: To learn to move and do — Physical Development | |
| 5.1 Develops gross motor skills | 5.11 Tells a story |
| | 4.9 Freely participates in gross motor activities |
| | 4.10 Throws, kicks, bounces, and catches |
| | 4.11 Runs, jumps, hops and skips |
| | 4.12 Shows balance and coordination |
| 4.13 Climbs up and down equipment | |

| Infant and Toddler Benchmarks | AECE Benchmarks |
|--|--|
| 5.2 Develops fine motor skills | 3.41 Independently applies technology and tools to address a variety of tasks and problems |
| | 3.43 Identifies purpose of common technologies and tools |
| | 3.44 Demonstrates the safe and cooperative use of technology and tool |
| | 4.6 Coordinates eye and hand movements to complete tasks |
| | 4.7 Uses small muscles for self-help skills |
| | 4.8 Uses writing and drawing tools with control and intention |
| 5.3 Coordinates eye and hand movements | 4.6 Coordinates eye and hand movements to complete tasks |
| 5.4 Develops self-help skills | 1.2 Demonstrates independence in personal care |
| | 4.2 Demonstrates health and personal care habits |
| | 4.7 Uses small muscles for self-help skills |
| DEVELOPMENTAL STRAND 5: To learn to think — Cognitive Development | |
| 6.1 Gains an understanding of basic concepts and relationships | 3.10 Classifies objects by physical features such as shape or color |
| | 3.11 Classifies objects conceptually (things that go together) |
| | 3.12 Recognizes patterns and can repeat them (patterning) |
| | 3.13 Demonstrates one-to-one correspondence |
| | 3.14 Demonstrates the ability to order and sequence |
| | 3.15 Demonstrates an understanding of number (how many) and numeral (3 is a numeral) relationship (numeration) |
| | 3.16 Demonstrates an understanding of addition and subtraction; using manipulatives |
| | 3.17 Shows understanding of different relationships of objects in space (spatial relations) |
| | 3.18 Shows an awareness of time concepts |
| | 3.19 Shows interest in exploring the environment |
| | 3.20 Uses senses to learn about the characteristics of the environment and to collect data (scientific process: observing) |
| | 3.21 Uses words to describe the characteristics of objects (scientific process: communicating) |
| | 3.22 Makes comparisons (scientific process: comparing) |
| | 3.23 Shows awareness of cause-effect relationships |
| | 3.27 Uses numbers in daily activities |
| | 3.28 Describes the characteristics of both two-dimensional shapes and geometric solids |
| | 3.29 Manipulates and combines two-dimensional shapes |

| Infant and Toddler Benchmarks | AECE Benchmarks |
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| 6.2 Applies knowledge to new situations | 1.4 Shows curiosity and desire to learn |
| | 3.24 Finds more than one solution to a problem |
| | 3.25 Applies information or experience to a new context (scientific process: applying) |
| | 3.26 Discusses natural events in the environment |
| | 3.30 Participates in exploratory measurement activities |
| 6.3 Develops strategies for solving problems | 1.5 Enjoys experimenting and problem-solving with ideas as well as with concrete materials |
| | 3.24 Finds more than one solution to a problem |
| | 3.30 Participates in exploratory measurement activities |